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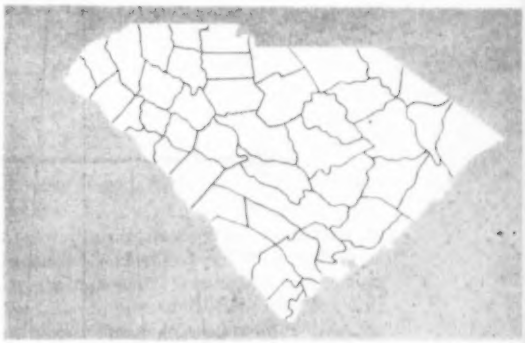

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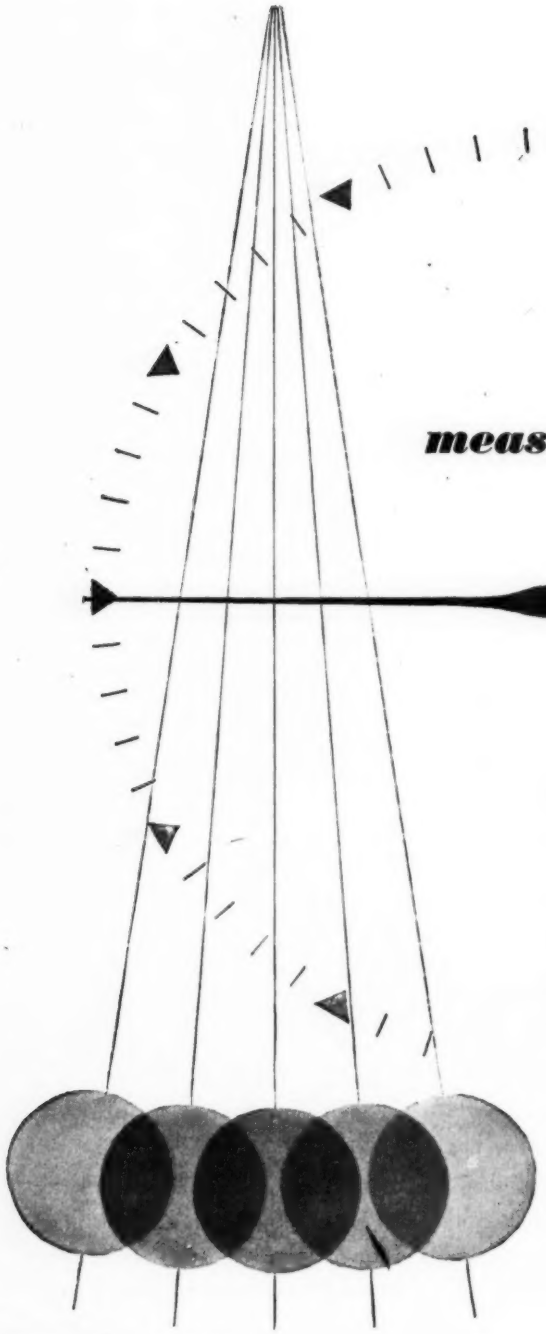

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ESOPHAGEAL VARICES: THE TREATMENT OF PORTAL HYPERTENSION BY PORTACAVAL SHUNT

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The clinical manifestations of esophageal varices may appear dramatically with the sudden onset of massive hematemesis. Usually, however, cirrhosis of the liver or Banti's syndrome has been suspected or diagnosed earlier. If in all suspected cases, careful roentgen visualization of the esophagus was carried out, as recommended by Schatzki,[1] the presence of portal hypertension would be recognized and appropriate treatment instituted. The vicious bleeding from ruptured esophageal varices might thus be prevented. In patients with Banti's syndrome, the repeated episodes of bleeding frequently terminate in death: in patients with cirrhosis not only may the bleeding per se cause death, but the shock, anemia and anoxia may precipitate failure of hepatic function.

The brilliant studies of Whipple,[2, 3] Blakemore,[4-13] Russelot[14, 15] and their co-workers have clarified the physiopathology of portal hypertension. The portal venous system, interposed between two capillary beds, drains blood from the gastro-intestinal tract, the pancreas, the gallbladder and the spleen. With obstruction in the portal system, nature attempts to compensate by returning the blood through collateral vascular channels to the systemic circulation. One of the most important collateral systems is through the coronary veins, the esophageal veins and thence into the azygos vein. When the portal hypertension has existed for a sufficient length of time, the esophageal veins become enlarged, tortuous and thin walled, so that trauma, which may be mechanical from rough food or chemical from the acid gastric juice, will result in rupture of a varix and bleeding. The hypertension in the veins will, of course, tend to sustain the bleeding; with cirrhosis and liver damage, hypoprothrombinemia may further interfere with the clotting mechanism.

Types of portal obstruction—The obstruction in portal hypertension is classified by Whipple[2, 3] as intrahepatic and extrahepatic. Intrahepatic obstruction is nearly always due to portal cirrhosis of the liver. In extrahepatic block (Banti's syndrome), the obstruction is in the portal vein or one of its tributaries. Frequently scar tissue replacement occurs at the obstructed area with little recanalization. This may be due to thrombosis caused by inflammation, trauma or pressure from without. In a second group, the thrombosis is due to extension into the portal vein of the obliteration process which occurs at birth in the umbilical vein and ductus venosus. Cavernomatous transformation, in which innumerable small vessels are found in the region of the portal vein, also produces portal hypertension. Various theories have been advanced as to the cause of cavernomatous transformation: thrombosis with recanalization, telangiectatic granulation tissue, congenital anomaly and neoplastic change such as an angioma (Whipple).[3] Blakemore[13] states that in his experience the extrahepatic block is almost invariably in the portal vein itself and due to atresia rather than cavernomatous transformation or thrombosis.

Diagnosis—A detailed discussion of the diagnosis of cirrhosis of the liver and Banti's syndrome is beyond the scope of this paper. Reznikoff[16] states that the diagnosis of Banti's disease is one of exclusion. Characteristically these patients have splenomegaly, secondary anemia, leukopenia, thrombocytopenia and esophageal varices. If, having ruled out the various blood dyscrasias, the liver function tests are normal, then extrahepatic portal bed block is fairly well established in the presence of the above findings.

The condition of the patient and the liver function

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tests assume considerable importance in determining if and when portacaval anastomosis should be performed in cirrhosis. Blakemore[7] divides cases of cirrhosis into three groups: In those with ascites or hemorrhage based on the inability of the liver to form adequate albumin or prothrombin, shunt is not indicated. If liver function is adequate but the healing process has produced periportal fibrosis resulting in severe portal hypertension, shunt is definitely indicated. With a varying degree of impaired liver function but with evidence of elevated portal pressure, shunt is indicated but only when prolonged therapy has succeeded in attaining an adequate improvement in liver function. Blakemore[7] feels that a serum albumin of 3 grams percent or better and bromsulfalein retention of less than 40 percent in 30 minutes indicates the probability of going through a successful shunt procedure. With unremitting jaundice, albumin below 3 grams percent, bromsulfalein retention over 40 percent, elevated alkaline phosphatase and true hypoprothrombinemia, the patient is an extremely poor operative risk.

Rationale of portacaval shunt—In the past, a number of procedures have been devised for the treatment of portal hypertension including splenectomy, omentopexy, ligation of the coronary veins, and injection of the esophageal varices with a sclerosing agent. Generally speaking, these procedures have provided only temporary relief. Garlock[17] has recently added packing of the mediastinum to stimulate the development of more collateral channels. The consensus, however, very definitely indicates acceptance of the portacaval shunt as the most physiologic procedure and the one most likely to produce permanent benefit (Whipple, Blakemore, Linton[18, 19] and Blalock[20]). Actually, this principle was well established and accepted after the experiments of von Eck in 1877 and a number of surgeons attempted the procedure in the early part of the century (Whipple). It was only, however, after the outstanding work of Blakemore and Lord[4, 5] in developing non-suture vessel anastomosis, along with other general advances in surgery, that portacaval shunt became practical.

As noted earlier, the body compensates for a vascular block by utilization of collateral circuits. At times, a fully developed collateral circulation may be inadequate to attain physiologic compensation. Portacaval shunt provides a single large drainage channel from the portal into the systemic circulation. The presence of elevated portal pressure in congestive splenomegaly has been shown by actual measurement repeatedly, with increases from two to five times normal. After the shunt, the venous blood under high pressure in the portal system flows into the relatively lower pressure vena cava or one of its tributaries. Evidence proving this is: The drop in the measured pressure which occurs after the shunt is open, the decrease or disappearance of esophageal varices by roentgen examination and, most important, by permanent cessation of bleeding from the varices.

Operation—With intrahepatic or extrahepatic block, a preoperative period of hospitalization is required with exceedingly careful preparation until a maximum state of improvement is attained. Portacaval shunt should not be done as an emergency procedure for bleeding esophageal varices.

In the presence of extrahepatic block, splenectomy is carried out. The decrease in the amount of portal blood flow has been estimated from 20 to 40 percent and this alone will provide considerable benefit. The splenic vein is carefully preserved, dissected up and then anastomosed to the side of the renal vein. Pressures are measured in tributaries of the portal vein before and after the shunt. It is important to emphasize that in the presence of extrahepatic block, the surgeon must be prepared to perform the shunt at the time of splenectomy, as this may present the only opportunity, technically, to do so. Secondary shunt procedures, employing the mesenteric or other veins, have been performed some time after splenectomy, but the technical difficulties are much greater.

Intrahepatic block may be treated by the splenorenal shunt or by anastomosis of the portal vein directly to the vena cava. Blakemore[13] feels the latter is preferable because the portal vein is more "husky", the shunt is larger, it is more likely to remain patent, esophageal varices as demonstrated by x-ray invariably disappear, and the mortality rate is lower.

Results—As the longest follow-up period reported is four and a half years, it is obviously too early to draw final conclusions. Blakemore in his most recent paper presented the largest reported series consisting of 91 patients. Linton, Hardy and Volwiler have reported on 15 patients. The results of these two series are summarized in Table 1. In Blakemore's series the two patients who died subsequent to their hospitalization for the shunt had recurring bleeding as the anastomosis had closed. Of the six patients who had recurrent bleeding, one has had one episode. Five others have had one or more periods of bleeding and in all of these, a splenectomy had been done earlier so that a vein other than the splenic had to be used. This again emphasizes the importance of being prepared to perform a shunt at the time of splenectomy.

Case reports—Case 1. JRB, 12 year old white boy was referred by Dr. Fritz N. Johnson on October 17, 1949 because of anemia and splenomegaly. About the age of four, his parents had noted the child to be pale and found that his twin sister was growing faster, whereas since birth the reverse had been true. His physician found the spleen to be enlarged and the patient to be anemic. He was repeatedly treated for the anemia with temporary improvement each time. Six siblings were well, although two had shown moderate anemia but no splenomegaly. He had the usual childhood diseases and also scarlet fever without known complications. The examination showed pallor of the skin and mucous membranes; the liver was palpable just below the right costal margin and the

spleen three centimeters below the left costal margin. The hemoglobin was 9.75 grams, red cell count 2,750,000, and white cell count 7,050 with a normal differential. Fragility was not increased. Serum bilirubin was 1.7 milligrams percent and alkaline phosphatase 4.9 units. Cephalin flocculation was negative. Bone marrow studies showed slight increase in erythroblastic activity. A diagnosis of Banti's syndrome was made but the parents wished to postpone further studies and treatment so that the child would not miss school. He was, therefore, placed on a high protein diet, iron, vitamins, methionine and intramuscular liver extract.

He returned June 5, 1950, having had no additional symptoms. The physical findings had not changed, although the spleen was thought to be slightly larger. The hemoglobin was 7.0 grams, red cell count 2,520,000, white cell count 4,350 with 49 percent polymorphonuclears and 50 percent lymphocytes. Bleeding time was 2 minutes, coagulation time 2.5 minutes and platelet count 143,000. Bilirubin was 2.4 milligrams percent, alkaline phosphatase 8.9 units, prothrombin time 79 percent of normal and cephalin flocculation negative. With barium swallow, small, slightly wavy varicosities were seen in the lower six centimeters of the esophagus. He was given 2,500 cubic centimeters of blood and vitamin K in preparation for operation.

Operation was carried out on June 14, 1950 under endotracheal oxygen and ether. A left abdominothoracic incision was used. The liver was grossly normal. The spleen, which was about three times normal size, was removed. The end of the splenic vein was anastomosed to the side of the left renal vein with three, everting, five-zero, silk sutures. Pressure in a tributary of the portal vein was 245 millimeters of water prior to splenectomy. After the shunt was opened, a second vein was cannulated and the pressure had dropped to 180 millimeters of water when the needle became dislodged. As this reading represented an appreciable decrease in pressure, the operation was not prolonged for further measurements.

Postoperatively, atelectasis in the right upper lobe developed but cleared promptly with treatment. His course was otherwise smooth. At the time of discharge on the tenth postoperative day, the hemoglobin was 15.5 grams, the white cell count 15,100 and platelets 406,000. A one-plus albuminuria had persisted. Serum bilirubin was 0.4 milligrams and alkaline phosphatase 5 units. His course has continued to be uneventful to date.

Case 2—JF, a 13 year old white boy was admitted May 26, 1950 because of hematemesis. An enlarged spleen had been known to be present for three years, but he had been asymptomatic until the morning of admission. A few hours before he had vomited an estimated pint of blood twice and while in the emergency room had a large stool composed mainly of dark blood. Examination showed good development and nutrition. The pulse was 120 per minute and the blood pressure 84/40. The mucous membranes were pale. The only other positive finding was an enlarged spleen extending eight to ten centimeters below the costal margin.

On admission, the hemoglobin was 7.0 grams, red cell count 3,360,000 and white cell count 5,950. Coagulation time was two minutes 45 seconds, bleeding time five minutes and platelets 162,000. Prothrombin was 84 percent of normal. During the next 48 hours, the hemoglobin dropped to 4.5 grams and the volume of packed cells to 12 percent in spite of therapy.

He was given 3,000 cubic centimeters of blood during the first 48 hours in the hospital. Although no further hematemesis occurred, the patient continued to pass large, tarry stools, the blood pressure remained around 100/40 and the pulse 100 to 110 per minute. Bleeding was obviously continuing so that it was thought advisable to attempt to control this by intubation and ballon pressure after the method described by Blakemore. A double lumen tube, with two ballons attached, was passed to maintain pressure on the esophageal varices which had been previously demonstrated by barium swallow x-ray examination. The ballons were left in place 72 hours, during which time it was apparent that the major bleeding had stopped. In this period he received 2,000 cubic centimeters of blood. During the next two weeks, he was given further transfusions totaling 5,000 cubic centimeters more of blood. A total of 10,000 cubic centimeters in all was given from the time of admission. Persistent tarry stools continued for several more days but the stools finally became normal in color 17 days after admission.

Laboratory studies now showed hemoglobin 15.0 grams, red cell count 4,900,000 and white cell count 4,200. The volume of packed cells was 42 percent. Bromsulfalein showed no retention in 45 minutes, caphalin flocculation was negative, total serum proteins were 5.47 grams with 3.94 grams of albumin and 1.53 grams of globulin. Serum bilirubin was 0.5 milligrams.

On June 16, 1950, under endotracheal ether and oxygen anesthesia, operation was carried out through a left abdominothoracic approach. The liver appeared normal. The markedly enlarged spleen was removed and the end of the splenic vein anastomosed to the side of the left renal vein. The pressure in a tributary of the portal vein was 490 millimeters of water at the beginning of operation and was 290 millimeters after the shunt was opened. His postoperative course was entirely uneventful and he was discharged on the fifteenth postoperative day. His laboratory studies have remained normal and his course uneventful to date.

Discussion—Obviously, a number of years must pass before the value of the shunt procedure in these

two patients can be determined. Nevertheless, they present several interesting points. In the first case, the advisability of a careful examination for esophageal varices is demonstrated. Although no bleeding had as yet occurred, with subsequent enlargement of the varices, hemorrhage would be anticipated, and definitely elevated portal pressure was found at operation. Knowing that a shunt would probably be necessary from the preoperative x-ray findings, adequate preoperative care and proper planning for the anticipated operative procedure could be carried out in advance. In the second case, the necessity for transfusions of large amounts of blood is amply demonstrated. Only after a return of the blood to normal levels could operation be justifiably undertaken. The value of ballon compression for controlling hemorrhage from esophageal varices is also well demonstrated in the second patient. This procedure was truly of life-saving benefit in this patient.

Summary—The rationale and the value of the portacaval shunt for the surgical treatment of portal hypertension has been adequately shown previously by Whipple, Blakemore and others. It has been emphasized that at the time of splenectomy in patients with extrahepatic portal obstruction, the shunt should then be carried out. A subsequent opportunity may not be available later because of technical difficulties. Two patients are presented in whom splenorenal anastomosis was performed for the treatment of portal hypertension with esophageal varices. In one the use of ballon compression of the esophageal varices definitely aided in controlling hemorrhage and permitted opportunity by transfusion and other means to prepare the patient adequately so that operative intervention could be safely performed.

Table 1

Results of portacaval shunts in the two largest reported series.

	Blakemore	Linton et al
Extrahepatic portal block		
Number	24	8
Postoperative deaths	2	0
Subsequent deaths	2	0
Recurrent bleeding	6	1
No bleeding	14	7
Intrahepatic portal block		
Number	55	7
Postoperative deaths	12	5
Subsequent deaths	9	0
Improving or greatly improved	46	2

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PUDENDAL BLOCK WITH HYALURONIDASE

HENRY C. HEINS, JR., M. D.*

This is the report of a pilot study of pudendal block with 1% procaine and hyaluronidase. The cases are fifty completely unselected service cases.

The enzymatic action of hyaluronidase hydrolyzes hyaluronic acid, a viscous polysaccharide found in the interstices of the tissue, where it normally obstructs diffusion of invasive substances. The basic research defining the properties of hyaluronidase apparently arose from observations made as early as 1928 by Duran-Reynals. It is reasonable to imagine that the enzyme would be applied, if possible to increase the penetration of desired substances into the tissues. That this has been feasible seems apparent from the number of papers relating to the use of hyaluronidase in hypodermoclysis. Kirby, Eckenhoff, and Looby have discussed favorably hyaluronidase as an adjunct to local anesthesia in dentistry and numerous surgical conditions. Their study of the action of the epinephrine on the spreading factor is of interest. It seems that if a vasconstrictor would decrease the absorption effect, it might also decrease the spreading effect. This apparently is not so. The spreading effect, on the contrary, appears to be enhanced by epinephrine. Presumably, this is because the rapid absorption caused by the hyaluronidase prevents the maximum spreading, which occurs when absorption is delayed by a vasoconstrictor.

Pregnant women should be psychologically prepared for a certain amount of pain in labor and be told that a moderate amount is normal. Most women fear labor pains and that fear is responsible for much of their suffering. These women should learn that everything will be done for them that is compatible with safety for them and their infants. They should understand the doctor's basis on which he hesitates to relieve the pain of labor completely. Pudendal block anesthesia for delivery and repair is a near perfect anesthetic for the patient, the fetus and the doctor. The outstanding feature of the method is that marked perineal gaping occurs within three minutes after the injection takes place. This facilitates a low forcep delivery, makes delivery of a breech easier, and minimizes perineal lacerations. The perineal reflex and the resultant urge to bear down are lost. The patient has to be instructed to bear down to help deliver the child. The pain of perineal stretching will be avoided. This pain is by far more severe than the other pain associated with labor, such as backache and abdominal pain. If this perineal pain is controlled, the patient does not suffer.

The popularity of regional anesthesia has been limited, because of the inability of surgeons and anesthetists to deposit anesthetic solution accurately and consistently along nerve trunks. Even skilled anesthetists cannot obtain adequate blocks in all instances. This method of increasing the diffusion of local anesthetics agents, therefore, might be of value in producing a higher percentage of successful blocks. In certain instances, increased diffusion might also be helpful in infiltration anesthesia.

The technique: The anesthetic mixture is made up by adding the contents of one vial of lyophilized hyaluronidase (150 T R units) and 0.5 cc. of epinephrine (1:1000) to 30 cc. of 1% procaine. The vial contains 150 turbity reducing units of hyaluronidase, such a unit being defined as the amount of hyaluronidase that reduces the turbity caused by 0.2 of a milligram of hyaluronic acid in horse serum to that caused by 0.1 of a milligram. Intradermal wheals of mixture are made halfway between the anus and ischial tuberosities on the perineum. A 10 cc. Luerlock syringe with a spinal #20 needle is used. Two fingers are placed in the vagina for orientation while injecting. Starting through the wheal, the needle is passed to the tuberosity and 5 cc. of anesthetic mixture are placed posteriorly and medially to the tuberosity to anesthetize the perineal branch of the posterior cutaneus femoris nerve. Then the needle is passed horizontally to the ischial spine and 5 cc. of solution is deposited here to anesthetize the pudendal nerve at it enters Alcock's canal. The syringe is then taken off the needle and refilled. 5 cc. of mixture is then infiltrated in the superior portion of the labia minora to anesthetize the perineal branches of the ilioinguinal nerve. The same procedure is carried out on the other side of the perineum. Complete perineal anesthesia is practically instantaneous. This is one definite advantage of the hyaluronidase mixture. One can secure an effective block much quicker than with ordinary pudendal block.

Results of the first fifty cases used on: Parity of group: Primigravidae–24 (48%); Multigravidae–26 (52%). Type of delivery: Spontaneous–28 (56%); Low forceps–22 (44%); Episiotomies–26 (52%). Duration of the anesthesia: Perineal anesthesia, less than 45 minutes: 15 (30%). Perineal anesthesia, longer than 45 minutes: 35 (70%). Final end result: Using Farr's description of an ideal or successful anesthesia as one in which the operative procedure was completed with no pain or discomfort to the patient, a satisfactory anesthesia as one in which the indicated procedure was completed with only a slight amount of discomfort, and a failure as a case where local anesthesia had to be abandoned or supplemented with inhalation anesthesia, our results were: Ideal–38 cases (76%); Satsifactory–10 cases (20%); Supplemented or failures–2 cases (4%). These two

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cases were persistent occiput posterior and experienced forcep rotation. (Since the first fifty cases have been reported, there have been forcep rotations on the perineum without supplemented anesthesia.) Although a small number of cases, this compares favorably with the statistics given by Buxbaum at the Chicago Maternity Center, where local anesthesia is strongly advocated. He reported 2,200 pudendal blocks with the following results: 880 cases (40%) ideal; 1,210 cases (55%) satisfactory; 110 cases (5%) absolute failures.

Summary and conclusion: The ideal agent to employ routinely in order to obtain analgesia and/or anesthesia in obstetrics has yet to be found. The requirements for the perfect analgesic drug or method are as follows:

1. It must be quick in action, constant and not complicated in administration. It must be applicable to home deliveries.
2. It must not interfere with progress of labor.
3. It must be non-toxic, both to the mother and fetus, and there should be a wide margin between the toxic and therapeutic dose.
4. It must produce an amnesic as well as analgesic effect.
5. It should produce complete relaxation without destroying the patient's ability to cooperate.
6. It should not lead to post partum bleeding, excitement or other complications.

The current multiplicity of agents and methods for obstetric analgesia and anesthesia indicates a lack of uniform plan of action for this phase of obstetrical practice. During the search for the ideal agent and method, three tendencies have appeared:

1. The local acceptance of a pattern of analgesia and anesthesia followed by an attempt to apply it to all obstetrical problems arising thereafter.
2. An initial unwarranted enthusiasm, which leads to the exploitation of a new agent or method by those whose basic qualifications are inadequate.
3. The indifferent employment of varying technique within one locale, rather than the direction of efforts toward evolution of a program applicable to a wide variety of cases.

A variation of a method of regional anesthesia is presented which will help anyone who uses pudendal block. The effectiveness of this procedure over the regular pudendal block will become obvious even in the hands of the novice. Above all, it facilitates relief of pain of perineal stretching, which can only be otherwise obtained with the more formidable types of anesthesia.

1. We have seen no untoward reaction or contraindications towards its use. We speculated about the 0.5 cc. (1:1000) of epinephrine added to our mixture having a vasopressor effect on our hypertensive patients. We have seen no appreciable rise in blood presusre.
2. With hyaluronidase added, the pudendal block is applicable even in the grand multipara, because of the rapidity of effect.
3. There were no local or systemic reactions to the drug. No effort was made to skin test the patients, prior to delivery. All episiorrhaphies healed by primary intention and there were no local infections of the perineum.
3. The technique of pudendal block is greatly simplified. The operator does not have to inject the nerve per se, but infiltration in vicinity of the nerve will accomplish an effective block.
4. After using some basic analgesia during the first stage in combination with the regional block for delivery, the child breathes spontaneously and the mother is not nauseated or vomiting. We believe that this combination has all the advantages and none of the disadvantages of spinal anesthesia.

Wyeth Incorporated generously supplied the hyaluronidase in form of Hydase for this study.

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MANAGEMENT OF TETANUS WITH MEPHENESIN

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Mephenesin (2-ortho-toloxy-1, 2 propanediol) known abroad as "myanesin" is a drug with curare-like action which has proved beneficial in alleviating certain neuro-muscular disorders. It has been used in the clinical management of Parkinson's syndrome[1, 2], multiple sclerosis[3], and in other conditions accompanied by muscle spasm.[2]

The use of mephenesin in tetanus was first suggested by Belfrage.[3] He reported its use in two cases using the intramuscular route of administration. The highest dosage which he employed was a total of 78 gm. in 120 hours. He reported adequate control of muscle spasm.

Das and Roy[4] used mephenesin in the treatment of seventeen cases of tetanus. They used the drug by intravenous injection employing a 10% solution with a dosage of 10 to 20 cc. for adults. The muscle relaxant action of the drug although remarkable was evanescent. These authors were hesitant to employ the drug as a continous intravenous drip. MacDonald[5] however, reported a case of severe tetanus in which he utilized a combination of mephenesin and sodium pentothal with excellent result.

Goodman and Adriani[6] concluded that the combination of mephenesin and phenobarbital was exceedingly satisfactory in controlling the muscular rigidity and spasm in moderately severe cases of tetanus. They reported dosage of 62.5 to 750 mgm. in children and up to 3.5 gm. in an adult given as often as every two hours, in some cases. In one case with unusually severe tetanus, the drug was unsatisfactory. The drug was administered by stomach tube.

REPORT OF CASES

CASE 1:

A twenty-eight year old negro saw mill worker was admitted to Roper Hospital on December 6, 1949.

Two weeks prior to entry he sustained an irregular laceration of the left foot measuring approximately 8 cm. in length when his foot became enmeshed in a saw mill chain. The wound was sutured by the company physician. No tetanus antitoxin was administered.

Three days prior to hospital entry he developed mild trismus. On the following day he acquired lacerations of the tongue due to involuntary contraction of the masseters. His trismus and dysphagia became more severe and he developed increased tonicity of the muscles of the face, neck and back. After re-examination by his local physician he was referred to Roper Hospital for treatment.

Physical examination on admission revealed a well developed and well nourished negro male who was mentally clear but acutely ill (T. 100(R.); P. 90; R. 24). He exhibited trismus and a "risus sardonicus." He was unable to swallow liquids. There was muscular spasm and rigidity involving the masseters, sternocleidomastoids and posterior cervical musculature. The neck was stiffened due to opisthotonus. The pupils were normal, equal and reacted to light and accommodation. The eye grounds were normal. The chest was clear and the heart normal. The abdominal musculature was rigid. There was an irregular laceration extending downward from the base of the left fifth interphalangeal joint to the mid-dorsum of the foot. A dirty-gray ulcerative, necrotizing base was present extending downward to involve the tendinous insertions.

The accessory clinical data were as follows: RBC 5.52 Mil. WBC 15,000 Hbg. 15.5 gm. with Polys 69, Lymphs 23, Monos 5, Eos 3, Baso 0. Urine: sp. gr. 1.025, albumin, sugar, acetone and microscopic examinations were negative. The serologic tests for syphilis were negative.

The clinical diagnosis was tetanus, moderately severe, and he was started on tetanus antitoxin and penicillin. 60,000 of TAT was given initially i.m., 100,000 units on the following day, and 50,000 units was infiltrated around the wound. Penicillin G was given in dosage of 100,000 units i.m. q.3 h. from December 7 to 11 and procaine penicillin 300,000 units i.m. b.i.d from December 11 to 19. In addition, dihydrostreptomycin .5 gm. b.i.d. was given from December 11 to 19.

It was decided upon entry to attempt to control the manifestations of his disease with mephenesin. Because of dysphagia a stomach tube was passed and a dosage of 1 gm. q.4 h. was given in the form of crushed tablets. In addition, pentobarbital or seconal sodium .1 gm. q.i.d. was given for sedation.

Course in hospital: There was progressive increase in the extent of muscular spasticity after hospital entry, to involve the musculature of the face, neck, intercostal muscles, back and abdomen. There was noticeable improvement in his dysphagia, however, and on December 10 tube feedings were discontinued. Because of his difficulty in swallowing the tablets of mephenesin ("Tolserol"), the elixir containing .1 gm./-cc. was substituted. A flexible dosage schedule was decided upon to maintain an even control of the muscular spasms. He was begun on a basic dosage of 32 cc. every three hours to which he was instructed to ingest additional amounts as needed. A quantity of the medication equal to 90 cc. was left at the bedside, and the patient was instructed to ingest an amount that would be required to alleviate muscular contractions. Prompt and satisfactory relief of muscular spasms was ob-

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tained. It was noted that repeated dosage at two hour intervals produced optimum control of symptoms. On December 19, 1949, 5 cc. every two hours day and night was ordered. The highest daily dosage employed in this case was 29 gm. The total amount of the drug given was 329 gm. The elixir contains 20% ethyl alcohol w/v and the ingestion of this amount of alcohol undoubtedly added to the sedative effect. The dosage of the barbiturates was accordingly reduced because of somolence. On December 14, the patient was able to comfortably eat a soft diet. At all times following this his muscular spasms, opisthotonus, trismus, dysphagia, muscular irritability and pain could be promptly brought under control by a suitable dosage of the drug.

By the seventeenth hospital day it became possible to gradually reduce the dosage of medication.

Because extensive debridement was not possible without major permanent functional impairment of the foot, the wound was treated with hydrogen peroxide soaks and a posterior plaster splint.

He was discharged from the hospital on his 23rd hospital day in excellent condition with only minor muscular spasms in the musculature of the abdomen and back.

No evidence of toxicity of the drug was observed in spite of the large doses employed.

A moderate anemia of 3.56 RBC and Hbg. 12.5 gm. developed, but this was felt to be due to fever and toxemia rather than to the effects of the drug. Hemoglobinuria was not observed on repeated examination of the urine as has been reported after parenteral administration.[7, 8]

CASE 2:

A twelve year old white school boy was seen in a local hospital on November 25, 1949 presenting symptoms of stiffness of the neck, increasing muscular tenseness, inability to open the mouth widely. These symptoms were first noted seven days before. His health otherwise had been good and past history and review of symptoms essentially negative. He had never been immunized against tetanus.

Physical examination: He was very tense and had been noted by the nurse to have several tonic spasms. At the time of examination he was in a position of opisthotonus, unable to open the mouth widely; there was hyperreflexia and on excessive stimulation of the muscles mild tonic spasm would occur. The abdominal muscles were quite tense. Physical examination otherwise was essentially negative except that there was a healing abrasion which showed some mild infection present on the lateral aspect of the right knee and a similar small area was present on the lateral aspect of the right ankle. These were the only wounds that could be found on a careful search for a possible site of infection by tetanus bacilli. On cross questioning, the boy remembered that these had been incurred about three weeks before in a fall while playing on one of the city streets.

Laboratory studies: Urine examination showed a specific gravity of 1.033, albumin negative on one occasion and 2 plus on a second examination, sugar negative, microscopic examination negative except for an occasional WBC; Hbg. 11.5 gm., RBC 4.24 mil., WBC 8,250 with differential of Polys 65, Lymphs 31, Eos 1, and Monos 3; sedimentation rate was 9 mm. in one hour corrected. A lumbar puncture was performed. There was normal dynamics, fluid was not under increased pressure. Cell count was 1.

The diagnosis of tetanus was made and the local wounds were debrided. 15,000 units of tetanus antitoxin was injected subcutaneously at the local sites. In addition, he was given 200,000 units of tetanus antitoxin in the next 48 hours and 10,000 units per day were continued thereafter for five more days. He was started on penicillin 100,000 i.m. q.3 h., mephenesin in doses of 1 gm. every 4 hours was given by mouth. An occasional dose of sodium pentobarbital was administered as necessary in order to obtain relaxation. After beginning mephenesin he was observed not to have any more tonic convulsions and within the next 36 hours his jaw became relaxed enough for him to take some soft food whereas only small amounts of liquid had been ingested before. He was considerably relaxed after having been on mephenesin for 72 hours and from then on required only two or three intramuscular injections of sodium pentobarbital in order to obtain good relaxation. After 11 days of administration of mephenesin in the aforementioned dosage the drug was discontinued. Except for mild stiffness of the neck muscles the remainder of the muscular system was entirely relaxed at that time.

His convalescence was uneventful and he was discharged from the hospital 15 days after therapy was instituted for his tetanus. He made a complete recovery without residuals.

SUMMARY AND CONCLUSIONS

Two cases of tetanus of moderate severity have been presented in which control of the symptoms was adequately effected by the use of mephenesin orally. In both only moderate dosage of barbiturates were found to be necessary to completely relax the patients to a degree sufficient to permit oral feedings, and to completely inhibit convulsions.

This is indeed a therapeutic benefit of extreme importance when compared with our previous experiences with individuals having tetanus in whom large doses of barbiturates have been necessary and in whom so often because of the extreme drowsiness, hazards of bronchopneumonia were considerably increased. Also, much more difficulty in maintaining nutrition was experienced because of the inability of the patients to cooperate in taking adequate amounts of fluids and food substances by mouth. In both of these patients the degree of sedation induced by the barbiturates is of minimal degree and in both, full cooperation from the standpoint of nursing care and administration of food and fluids was maintained throughout their illness. These would appear to have been factors of considerable importance in shortening the time of recovery and necessary hospital stay. In case 1, an adult, much larger doses of mephenesin were required

for adequate relaxation than were required in case 2 who was a small 12 year old boy. It would appear from our experience in these two cases and from the use of the drug in a large group of patients with other disorders such as Parkinsonism and various other states of spasticity, that when given by mouth fairly large doses can be used without hazard. While not as complete relaxation as can be achieved by tubocurarine is induced in these patients, such a degree of relaxation is not necessary to control the tonic convulsions or to relax the jaw sufficiently to permit the patient to eat and drink. Judging from two other cases where tubocurarine was utilized it is our personal feeling that we will in the future choose to use mephenesin and moderate dosage of barbiturates to give sedation as a method of choice rather than excessive or large quantities of barbiturates or curare to obtain muscular relaxation in individuals having tetanus.#

#Since submitting this report 3 additional patients with tetanus have been treated by this form of management. One of them, a middle aged colored woman, was given initially for several doses intravenous Mephenesin. The other two patients with less severe trismus were treated with oral Mephenesin. In all three we were satisfied with the advantages previously observed, namely satisfactory control of the "spasms" without excessive sedative.

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VERATRUM VIRIDE IN HYPERTENSION

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Recent reports of the effectiveness of veratrum viride in lowering the blood pressure of hypertensives have revived some interest in this substance. It had been used in past years "as a cardiac depressant and to soften the pulse and lower the blood pressure in eclampsia",[1] but had rather generally fallen into disuse because of the toxic symptoms associated with its use.[2] During recent years only occasional reports recommending it appeared, and these were generally comments on its effectiveness in eclampsia.[3, 4, 5]

In 1946 a review of the pharmacology of the veratrum alkaloids presented the effects of these substances in some detail.[6] Among other actions, a depressor effect on the blood pressure due to diminution of arterial resistance, and a vagus stimulating effect were noted.

In the same year a clinical report of the prolonged use of veratrum viride in a group of hypertensives appeared.[7] The writer considered the preparation used to have advantages over other drugs used in hypertension and to have a "wide margin of safety."

Other recommendations of the effective use of the drug have appeared in more recent publications. One group of investigators reported the results of detailed studies of the effect of veratrum in hypertension. They concluded that it decreased peripheral resistance and allowed a normal peripheral blood flow after a brief period of depression with the fall in blood pressure.[8] Freis and Stanton found veratrum viride "to be a useful therapeutic agent in the treatment of patients with (a) 'hypertensive crises,' (b) severe, long-standing hypertensive disease which proved resistant to other forms of treatment and (c) hypertension complicated by cardiac failure."[9] Freis noted that the "hypotensive response to long-continued administration is seldom as dramatic as that seen after short-term administration."[10]

These interesting effects of veratrum viride observed by other writers prompted the trial of a biologically standardized preparation of veratrum viride* in a group of patients with elevated blood pressures being followed in the Out Patient Clinic of the Medical College of the State of South Carolina. The majority of the patients were colored females in the fifth and sixth decades.

No attempt was made to select cases which had been carefully studied as to the etiology of their blood pressure elevation. However, with the exception of one case with chronic pyelonephritis, the group repre-

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* Vertavis. The supply of this drug used in this study was furnished through the courtesy of Irwin, Neisler and Co., Decatur, Illinois.

sented patients falling into the classification of essential hypertension, and all were lumped into the general grouping of hypertensive cardiovascular disease.

In most cases the patients had hospital and/or clinic records of visits for months or years previously with the primary complaints related to the cardiovascular system, and most had been advised to try salt-poor diets and had been given prescriptions for phenobarbital or other mild sedatives, prior to the use of veratrum.

There was a great deal of variation in the severity of the vascular disease and in the degree of involvement of the kidneys and of the heart in these cases. A number of patients had relatively mild hypertension with good renal and cardiac function, others had severe hypertension and were being treated for cardiac decompensation, and still others were on the borderline of renal insufficiency.

In general the method followed was to observe the patients for a few weeks without therapy, for a few weeks on phenobarbital and then to give Vertavis in dosage according to the recommendations of Freis and Stanton.[9] It had been noted by these writers that given orally, the drug produced its maximal effect in four to six hours after administration, and that the effect terminated in ten to fourteen hours. They therefore recommended that one half the daily dose be given in the morning and the remainder in the evening. Not more than ten units were given at one time and when more was needed per half-day it was given in ten unit quantities at one hour intervals. Thus if the total day's dose was 60 units, 10 units were given at 7, 8, and 9 A. M. and at 7, 8, and 9 P. M. This routine of administration seemed to lessen the dangers of side effects and of cumulative overdosage.

Twenty-two patients were given the drug, orally. Of this group what may be considered to be a significant and definite fall in arterial pressure during the period of veratrum administration, occurred in six cases. The reduction in systolic and diastolic blood pressure in this group varied between ten and thirty or more millimeters of mercury generally, and was considered a definite response to the drug.

In seven other patients it was apparent that the trend of the blood pressure was lower while veratrum viride was used than in the pretreatment period, but at times elevation to the level of, or above, some of the pretreatment readings made its value doubtful.

Nine patients showed no significant response. Three of these, however, discontinued the medication before what was considered to be an effective dose was reached. The remaining six had blood pressures which remained close to the pretreatment levels throughout the period of drug administration.

Thirteen patients stated that they felt better while on the medication and the remaining nine noted no change or felt worse.

Three patients discontinued treatment before completion of the desired period of therapy. The majority, however, took the drug for six weeks, in varying dose, and in a few it was continued for a longer interval.

Almost all cases had nausea, vomiting, or both upon ingestion of moderate or high doses of the drug. All but one took thirty units daily without complaint, but many had nausea or vomiting with forty units. A few were able to get up to sixty units before vomiting occurred. In most cases in which a blood pressure fall was observed it was achieved with thirty or forty units per day. In only one case was excessive slowing of the heart rate noted, and this was quickly abolished with atropine. No serious toxic reaction occurred in any case. (Freis and Stanton have reported bradycardia, marked blood pressure fall, sweating, nausea, vomiting, salivation, blurred vision, mental confusion, a sense of numbness, and collapse in the upright position as effects from overdosage).[9]

Not included in this group was a small number of patients hospitalized for severe hypertension with renal failure or heart failure, who were given Vertavis. In none of these patients was a definite fall in blood pressure noted, even though at times the total day's dosage of the drug was as high as eighty or one hundred units. In this particular group, no toxic effects were noted from high dosages.

CONCLUSIONS

Our observations of the effects of Vertavis in the patients upon whom we have used it lead us to believe that it is probably effective in reducing the blood pressure in a small percentage of cases of hypertensive vascular disease, and in some cases the response to moderate doses of the drug is better than that obtainable with phenobarbital. It is felt that no conclusions as to its value for prolonged periods can be drawn nor does there appear to be, from inspection of this group of cases, any particular type of patient, or variation of hypertensive disease which is especially responsive to administration of Vertavis.

Previous reports of its use in hypertensive patients make important the warning that it may well produce toxic effects, in varying dosages; therefore care in administration, and observation of the individuals in whom it is used is advisable.

SUMMARY

1) A commercially available standardized preparation of veratrum viride (Vertavis) was used on a group of twenty-two patients with hypertensive vascular disease.

2) In a small percentage of the group a definite blood pressure reduction was noted while the drug was administered.

3) Some toxic effects were noted in practically all cases, but consisted in nausea or vomiting only, in most.

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NINTH ANNUAL FOUNDERS' DAY PROGRAM

Baruch Auditorium

Medical College

Charleston, S. C.

Thursday, November 2, 1950

Under the joint sponsorship of the Medical College Alumni Association and the South Carolina Academy of General Practice

PROGRAM

9:30 A. M.

Dr. William M. McCord, Professor of Chemistry, Medical College of South Carolina: "Water Balance Mechanisms."

10:00 A. M.

Dr. John M. Nokes, Professor of Gynecology and Obstetrics, University of Virigina: "Errors and Omissions in Obstetrics."

11:00 A. M.

Dr. Donald A. Covalt, Clinical Director, Institute of Physical Medicine and Rehabilitation, New York University, Belevue Medical Center: "Trauma, Disability and Chronic Disease (Medicine's Responsibility)."

12:00 Noon

Dr. Murray M. Copeland, Professor of Oncology, Georgetown University Medical Center; Director, Department of Oncology, Georgetown University Hospital: "Diagnosis and Treatment of Premalignant Lesions of the Breast."

1:00 P. M.

Luncheon, Medical College Library.

2:30 P. M.

Dr. Alexis F. Hartmann, Professor of Pediatrics and Head of the Department, Washington University School of Medicine; Physician-in-Chief, St. Louis Children's Hospital: "Problems of Fluid Therapy."

3:30 P. M.

Dr. Ray O. Noogin, Professor of Dermatology and Syphilology, Medical College of Alabama: "Treatment of Common Skin Infections."

4:30 P. M.

Pathologic Conference, Dr. Kenneth M. Lynch, President and Professor of Pathology, Medical College of South Carolina.

7:30 P. M.

Founders' Day Banquet. Speaker, Dr. James Howard Means, Jackson Professor of Clinical Medicine, Harvard Medical School; Head of the Department of Medicine, Massachusetts General Hospital: "Physician, Know Thy Self."

TEN POINT PROGRAM
OF THE
SOUTH CAROLINA MEDICAL ASSOCIATION

1. Cooperation

To promote closer cooperation and better understanding between all agencies, groups and individuals concerned with providing and improving medical care for the people of South Carolina.

2. Extension of Medical Care

To study constantly the need and availability of medical care in each county of the State and in the State at large.

To promote plans for providing or improving medical care where is a need, particularly in the rural areas.

3. Pre-Paid Hospital and Medical Care

To make voluntary pre-paid hospital and sickness insurance available to all the people of the State (through Blue Cross, Blue Shield, and commercial insurance policies), and to promote the widespread purchase of such insurance.

4. Care of Indigent

To work with local county and state agencies, and with philanthropic organizations, toward securing good medical care for the indigent.

5. Public Health

To support the South Carolina State Board of Health in its broad program of preventing diseases and of safeguarding the health of our people.

6. Health Councils

To support the State Health Council in its announced program. To sponsor the formation of a County Health Council in every county of the state, and to encourage our members to support and to work with these organizations.

7. Hospitals

To promote the expansion of present hospital facilities and the building of new hospitals—where there is a definite need.

To strive for highest standards of professional care in the hospitals in the State.

8. Medical Colleges

To support the Medical College of the State of South Carolina and to bend our efforts toward keeping its standards of education on a par with other medical colleges throughout the country.

To promote good nursing education and good nursing care throughout the State.

9. Education of the Public

To acquaint the citizens of the State with regard to the problems of medical care in existence today, to inform them as to what is being done to solve these problems, and to advise with them as to further plans for securing better health and better medical care for the people of South Carolina.

10. Political Medicine

To prevent political control or domination of medical practice or of medical education.

The Journal of the South Carolina Medical Association

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Please send in promptly notice of change of address, giving both old and new; always state whether the change is temporary or permanent. Original manuscripts, subject to approval by the Editor and the Editorial Board, are desired for publication in the Journal. They should be typewritten, double spaced, on 8½ x 11 paper. References should be complete, and only such as relate directly to statements quoted in the paper. Illustrations will be used as funds permit, or as authors are willing to bear the necessary increase in cost. Short original articles are preferred to long reviews.

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OCTOBER, 1950

COMMITTEE ON MEDICAL SERVICE

In the months preceding and following Pearl Harbor, physicians were volunteering for military service and reserve medical officers were being called to duty in such numbers that a critical shortage of physicians developed in many areas in South Carolina. Finally a Procurement and Assignment Service was established on a national and state level and some order was brought into being.

When the international changed perceptibly several months ago and it became evident that this country would be forced to increase markedly its military forces, it was obvious that there would be a need for a greatly increased number of medical officers. It was hoped that those young physicians who had been educated under the ASTP and V-12 programs would volunteer for service—and such a request was made of them by military leaders and by officers of the American Medical Association. The response to the appeal was neglible and it was apparent that some other means would have to be used to secure the necessary medical officers. There were two alternatives; to call up members of the reserve medical corps, or to enact legislation whereby physicians could be drafted into service.

To call back into service physicians who had only recently served three and four years with the military forces was highly unfair, so medical leaders agreed with the members of Congress in favoring registration of physicians with subsequent drafting of those who should serve. A special draft of physicians had never been necessary in this country before and the idea of subjecting the members of the profession to such a special type of legislation was unpopular to some, but to the leaders of the American Medical Association and to those of our own association it was a course which had to be followed if the members of our armed forces were to have adequate medical care.

As the necessary legislation was being drafted in Congress it was the hope of many that an agency, similar to Procurement and Assignment in World War II, would be established. When the bill finally reached the desk of the President, however, it was found that provision had been made for an advisory council on the national level only. The creation of advisory committees on the state and local levels was apparently a matter to be decided upon by those appointed on these levels to administer the registration under the Selective Service System.

When the officers of our Association realized the situation, they immediately called Council into special session. After a careful appraisal of the conditions which prevailed, Council concluded that a permanent Committee of Military Service should be created immediately within our own organization which could not only give special study to the subject but which could serve as a spokesman for our Association and could serve as an advisory committee to those administering Selective Service and to those responsible for the calling up of reserve medical officers. Council also felt that the committee should be composed of a chairman, a small executive committee, and a large general committee. Council also agreed that this was a matter which should be discussed and decided by the House of Delegates.

At a special meeting of the House of Delegates held in Columbia on September 10, the plan of the Council was adopted and the committee was set up as follows: A Chairman (elected by the House of Delegates), one member from each judicial district of the state, fourteen in all, (nominated by the delegates from the counties involved, and elected by the House of Delegates), with the President, Secretary, and Business Manager of the Association ex officio members. An executive committee of three was agreed upon, to be composed of the Chairman of the committee and two others to be elected by the general committee.

The personnel of the Committee on Military Service, as elected by the House of Delegates, was as follows:

Dr. Frank C. Owens, Columbia, Chairman
Dr. Lawrence Thackston, Orangeburg—First Circuit
Dr. Wallace Cone, Williston—Second Circuit
Dr. Norman Eaddy, Sumter—Third Circuit
Dr. Paul Barnes, Bennettsville—Fourth Circuit
Dr. C. A. West, Camden—Fifth Circuit
Dr. Roderick MacDonald, Rock Hill—Sixth Circuit

Dr. Leon Poole, Spartanburg—Seventh Circuit
Dr. C. J. Scurry, Greenwood—Eighth Circuit
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Dr. W. W. King, Batesburg—Eleventh Circuit
Dr. I'On Weston, Mullins, Twelfth Circuit
Dr. W. W. Edwards, Greenville—Thirteenth Circuit
Dr. C. G. Brown, Walterboro—Fourteenth Circuit

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Dr. N. B. Heyward, Columbia, Secretary
Mr. M. L. Meadors, Florence, Counsel & Business Manager

Executive Committee

Dr. Owens
Dr. Thackston
Dr. West

It has been our privilege to serve on and with many committees of the Association during the past ten years and at no time have we seen a committee which was as well balanced or which showed the presence of as many men who were as well acquainted with the task at hand. We are confident that this committee, under the leadership of Frank Owens, will represent our Association creditably and honorably.

ORIGINAL WORK

In this issue we are pleased to publish four articles emanating from individuals who are connected with the Medical College and with Roper Hospital, in Charleston. Each article is the result of original work on the part of the author or authors.

A progressive medical school is one in which there is not only teaching of a high order but one in which members of the staff are engaged in original scientific study—be it on the clinical wards or in the laboratory. The same is true of a progressive teaching hospital.

Upon the basis of the articles which are to be found in this issue and of articles which have appeared recently in other medical journals, we are convinced that the faculty of our Medical College and the staff of Roper Hospital are "on the ball." It is our sincere hope that this evidence of progress will continue and that the other teaching hospitals in the state will emulate the example which Roper is setting.

PRE-NATAL BLOOD TESTS

A few physicians, knowingly or through carelessness, are failing to have a serological test for syphilis made upon all the pregnant women who come under their care. We would direct the attention of these men to the following sections of the law of this state which bear upon this subject:

"Every physician attending pregnant women in the State for conditions relating to their pregnancy during the period of gestation and/or at delivery shall, in the case of every woman so attended, take or cause to be taken a sample of blood of such woman at the time of first examination, or within three days thereafter, and shall submit such sample to an approved laboratory for a standard serological test for syphilis.

"For the purpose of this Act a standard serological test shall be a test for syphilis approved by the State Health Officer of South Carolina, and shall be made at a laboratory approved to make such tests by the State Health Officer of South Carolina. Such laboratory tests as are required by this Act shall be made on request without charge at the South Carolina State Board of Health.

"Any person who violates the provisions of this Act shall be guilty of a misdemeanor and upon conviction shall be punished by a fine of not more than One Hunderd ($100.00) dollars or imprisonment for not more than thirty (30) days."

A.M.A. MEETS IN CLEVELAND DECEMBER 5-8

Chicago—What does a good family doctor do when he takes a holiday?

He heads for a medical meeting, of course, and goes right on talking about cardiac arrhythmias and gastrointestinal upsets and all the rest of the diseases that are plaguing mankind.

Better start now, Doctor, plotting a scheme for a colleague to take your OB calls for a week so that you can get out of the office for a holiday and that "clinical refresher" awaiting you at the A.M.A. Cleveland Session for General Practitioners, December 5-8.

Cleveland won't offer the abalone steaks and cable cars of San Francisco or the boardwalk and beach of Atlantic City—but it will offer you, besides the four days of demonstrations and lectures, ample opportunity to take care of the inner man at fine restaurants with evenings of relaxing entertainment at its most modern theatres.

Clinical sessions will be under outstanding teachers with attendance at these meetings limited so that you can enter into the discussions and inquire about your own problems. Doctors will hear leading medical authorities discuss treatment of actual cases of cancer.

The scientific exhibit will offer special demonstrations on fractures, diabetes, rheumatism and arthritis. Technical exhibits will feature the latest developments in drugs, equipment, books and allied medical products.

Meetings of the House of Delegates will be open to all members of the medical profession, and visitors in related fields are welcome to attend the sessions which will be held Tuesday and Wednesday, December 5 and 6.

Color telecasts of surgery, clinical treatment and examination at University Hospital in Cleveland are earmarked as one of the highlights of the meeting.

Another outstanding event will be the election of America's typical family doctor to receive one of medicine's highest honors—the General Practitioner's Award. Doctors in line for this recognition are nominated annually by local and state medical societies and elected by the House of Delegates. The award goes to the doctor who best exemplifies the

profession's standards of service to patients, community and country.

Last year's Clinical Session in Washington, D. C. drew over 4,000 doctors from every part of the United States. This year, the A.M.A. has issued a blanket invitation to all members of the Canadian Medical Association, which should increase normal attendance.

MINUTES OF COUNCIL MEETING THURSDAY P. M. JUNE 1, 1950

The meeting was called to order at 4:20 P. M. by Dr. Mayer, Chairman, at the Columbia Hotel, Columbia, S. C. Those present were: Drs. Tuten, Guess, Cain, Jr., Hugh Smith, Alford, D. L. Smith, Chapman, Latimer, Price, McCants, Stokes, Sease, Heyward, and Mr. Meadors.

The Secretary reported the telegram of sympathy from the Association to Dr. Price, and requested Mr. Meadors to have the Treasurer send Dr. Price a check for $25.00 for his parent's charity in lieu of a floral offering.

The Secretary then reported in detail the agreement between himself and Mr. Meadors on the division of duties, as outlined in the change in the by-laws adopted by the House of Delegates. After a full and free discussion, Mr. Meadors objected to the word "assist" in the agreement, feeling that it designated him to the position of assistant to the Secretary, whereas he considered himself an officer of the Council. It was moved by Dr. Chapman, Seconded by Dr. D. L. Smith, that the words "cooperate with" be substituted for the word "assist" in the printed list of duties under discussion. This was passed.

It was moved by Dr. Hugh Smith, seconded by Dr. Stokes, that No. 3 in the duties assigned to the Secretary, be changed to read, "He shall keep a card index register of all members of the Association."

It was moved by Dr. Hugh Smith, seconded by Dr. Tuten, that the Treasurer be responsible for sending the check for membership, accompanied by the report, to the A. M. A. It was also moved by Dr. Hugh Smith, seconded by Dr. McCants, that Mr. Meadors must make a yearly report to the Association in addition to the Secretary's report. Both motions were passed.

It was moved by Dr. Price, seconded by Dr. Latimer, that the Secretary and Business Manager go over the records of the Association and that the Secretary bring those records that he needs to Columbia. This was passed. After the passage of the individual motions, Dr. Tuten moved, seconded by Dr. Sease, that the Plan of Duties, as indicated above, be adopted as a whole. This was passed.

It was moved by Dr. Price, seconded by Dr. D. L. Smith, that the Secretary confer with the Treasurer, giving him a list of the supplies and equipment necessary for his office in Columbia and that the Treasurer supply the money for same. This was passed.

The Secretary was allowed $1,500 a year to help provide the salary for a Secretary and any extra help, and $50 a month, if so much be necessary, for office rent.

The Chairman then called upon each officer for an estimate of his individual probable budget. The Vice-President had no budget but along with the other officers, he was allowed expenses of travel. Dr. Price stated that the custom was 5¢ a mile and $10 a day for each day or part thereof, spent outside of the State on Association business. The President-Elect had no budget. The Business Manager requested $5,400 a year, if so much be needed. The Treasurer's budget was included in the Business Manager's budget.

Dr. Hugh Smith regretted that he would not be able to attend the meeting of the House of Delegates of the A. M. A. in San Francisco and asked that an alternate be appointed. Dr. J. D. Guess was elected.

Dr. Price moved, seconded by Dr. Hugh Smith, that the expenses of the Secretary be paid to such meetings that he will attend. It was moved also that the expenses of the Business Manager be paid to the coming A. M. A. meeting in San Francisco.

It was moved by Dr. Hugh Smith, seconded by Dr. Stokes, that Dr. Price be re-elected as Editor of the Journal for a year. Dr. Price stated that he would like to retain the editorship for about a year but expected to retire about January 1, 1952. He was unanimously elected.

Dr. Chapman then moved that since Dr. Price expected to retire on or about January 1, 1952, Dr. Joe Waring of Charleston be elected as an associate editor, so as to become familiar with the Journal, and he would automatically become the editor upon Dr. Price's resignation. There was considerable discussion. Dr. Chapman's motion was tabled on the motion of Dr. D. L. Smith, seconded by Dr. Stokes.

A letter was read by Mr. Meadors from the Ocean Forest Hotel, Myrtle Beach, S. C., asking Council to pick dates for the 1951 meeting. After consulting the calendar, Dr. Sease moved, seconded by Dr. Tuten, that the dates of May 15, 16, 17, 1951 be picked. This was passed.

Dr. Price moved, seconded by Dr. Alford, that the Chairman appoint a committee to study the idea of a Grievance Committee and to report its findings to Council for action. This was passed since it was felt that such a committee could be of great service to the Association.

Salaries: Editor of the Journal; $1200 per year and $600 for Secretary.

Business Manager; $7200 per year, traveling expenses, and $5400 for office help.

Secretary; allowed traveling expenses.

Treasurer; allowed traveling expenses.

Motion for adjournment at 6:30 P. M. until a meeting is called by the Chairman.

Respectfully submitted,
N. B. Heyward, M.D.
Secretary

THE TEN POINT PROGRAM

M. L. MEADORS, DIRECTOR OF PUBLIC RELATIONS AND COUNSEL

COMMITTEE ON MILITARY SERVICE

The House of Delegates of the South Carolina Medical Association, pursuant to a Resolution adopted by Council at a meeting on September 7th, met in special session in Columbia on the afternoon of Sunday, September 10th. The purpose of the meeting was to act on a recommendation of Council for appointment of a Committee on Military Service, to assist in determining the availability for military service of physicians holding commissions in the Reserve Corps, and those who may be subject to draft under the law recently enacted by Congress.

The House, after full general discussion of the matter, adopted the Council's recommendation and proceeded with the election of the members of the Committee—one from each of the fourteen Judicial Circuits in South Carolina, and Dr. Frank C. Owens of Columbia as Chairman. The President of the Association, the Secretary and the Business Manager will also serve on the Committee, ex officio. The member from each Circuit was elected by the delegates from the counties composing that Circuit, and the election of all was confirmed at the meeting of the House of Delegates.

On Wednesday afternoon, September 13th, the newly created committee held its first meeting and completed organization, through election of Dr. Lawrence P. Thackston and Dr. Carl West to serve with the Chairman as an Executive Committee. Dr. N. B. Heyward was elected Secretary. The Executive Committee, pursuant to authorization by the full committee, began the immediate preparation of a questionnaire, which is to be sent to every doctor in South Carolina, for the purpose of ascertaining his present civilian status and military service. The information so obtained will be utilized by the committee in forming its recommendations to the military officials on the availability of those called for service, either from the reserve corps or under the draft act.

The questionnaires are to be completed and signed in duplicate, and returned to Dr. N. B. Heyward, Columbia, S. C. Each committee member will be furnished one copy of the questionnaire of each physician in his Circuit. Thus, the information will be available to the district member of the committee and likewise will be a part of the committee's permanent file, to be kept by the Secretary.

As this is written questionnaires have been mimeographed and mailed in duplicate to every member of the Association. Within a few days they will be mailed to the doctors in the state who are not members of the Association. All physicians are urged to complete and return the questionnaires to Dr. Heyward immediately upon their receipt.

A new policy adopted by the Department of Defense and just announced indicates that there will be in the future less difficulty by reason of the calling up of reserve officers who have already served extended tours of duty. Briefly stated, the change represents the recognition of the same system of priorities in the calling up of reserve officers as that provided under the new act with respect to those registered and called under its terms.

THE OBJECTIVES OF ORGANIZED MEDICINE*

This opportunity to speak before the annual open meeting of the Pee Dee Medical Association is both an honor and an opportunity. That you have a meeting like this each year, to which are invited outstanding and intelligent laymen, is an implementation of one of the objectives of organized medicine. It is a fine thing for doctors and laymen to meet together and to discuss medical objectives in terms that the laymen can understand and appreciate. Regardless of how fine the accomplishments of the medical profession are in scientific matters, these accomplishments yield only professional gratification unless they can bear fruition in the public good. The utilization of the fine array of medical knowledge cannot be used in the practice of medicine unless the public knows of its existence, appreciates its value, and cooperates with the physician in its application to their own problems. The confidence in and the respect for the medical profession has been under attack from several sources for a number of years. There has been a determined and well-planned effort to undermine the confidence of the public in the integrity and the altruism of doctors. There is no doubt that these attacks have borne much fruit. Doctors themselves realize that they are not held in the same repute and esteem that they once were. The most vicious attacks have been aimed not at the individual doctor, but at the profession as it works in unified organizations. The greatest medical organization in the world, both from the standpoint of numbers, activities and influence, is the American Medical Association, and that Association has been assailed by politicians and social workers of many types. It has

* (Address by J. Decherd Guess, M.D., president-elect, South Carolina Medical Association at the annual open meeting of the Pee Dee Medical Association.)

"A high percentage of cases of seasickness and carsickness can be aborted or prevented by suitable doses of dimenhydrinate (Dramamine)."

—Council on Pharmacy and Chemistry, New and Nonofficial Remedies, J.A.M.A. 143:815 (July 1) 1950.

DRAMAMINE® Brand of Dimenhydrinate—for the prevention or treatment of motion sickness—is supplied in 50 mg. tablets and in liquid form.

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

RESEARCH IN THE SERVICE OF MEDICINE **SEARLE**

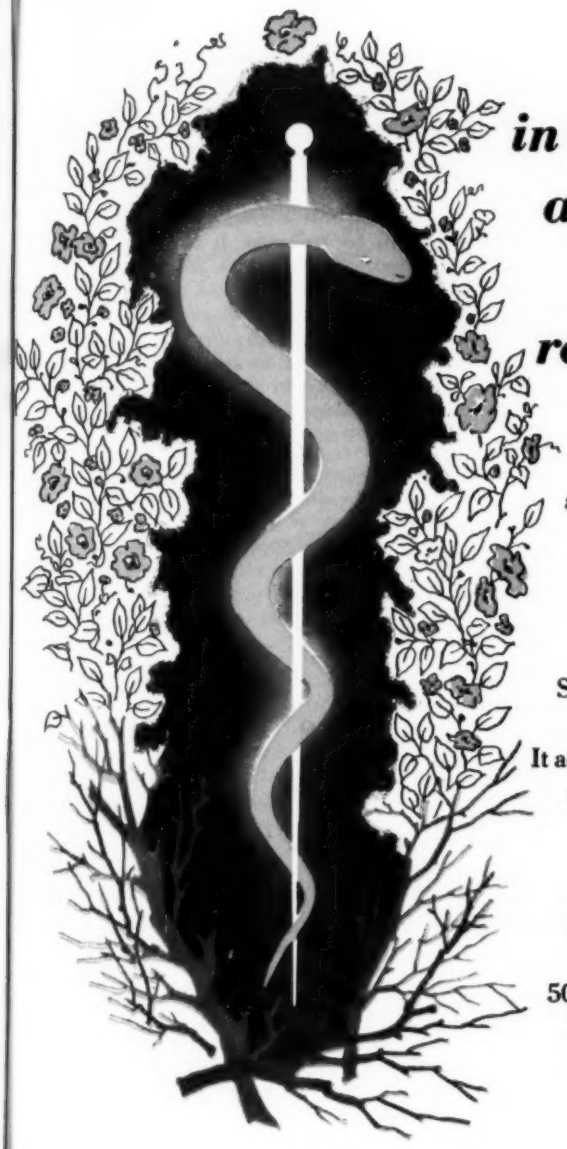
been subjected to legal investigations and prosecutions, and its officers have been accused of autocratic practices and purely selfish motives. However, the American Medical Association is, after all, simply a large group of ordinary, everyday practitioners of medicine. Every doctor in this group is a member. It is made up of constituent state associations, and those state associations are made up of constituent county societies. Even within the profession, the accusation has been made that the American Medical Association is controlled by a small clique of influential men. No doubt many of us have, at times, suspected the truth of this charge. In so far as that accusation is true, it is so because the rank and file, the grass roots, have allowed their leaders to conduct the affairs of the Association as they wished, without any personal effort to direct its overall policies. This fact was strongly brought home to me as I sat in the meeting of the House of Delegates of the Association in San Francisco in June. Many resolutions bearing upon the general policies of the Association and its internal management were presented to that House. Some of these came from individual members and many came from constituent state associations. Each one of these resolutions was read in the House and then was referred to a reference committee. It occurred to me, as I saw this process going on, that here is the clue to how the policies of the Association are determined and its affairs conducted. Those reference committees had been appointed by the Speaker prior to the meeting. It occurred to me that actions on these many resolutions were already cut and dried by reason of the selection of the personnel of the reference committees. Then imagine my surprise as the first session was about to adjourn, when the Speaker of the House stated that there would be no meeting of the House on the following day but that the entire day would be given to the consideration by the several reference committees of resolutions already introduced. He stated further that every delegate to that House of Delegates was not only invited but he was urged to attend the meetings of the reference committees which were considering resolutions in which he was interested. He went further than that. He stated that *every* member of the American Medical Association was similarly invited and urged to attend and to participate in the deliberations of the reference committees.

I attended meetings of several of those committees. Hearings were conducted informally. Every man present was allowed opportunity to express himself concerning the content of the resolution under consideration. He was allowed to speak as often as he wished and to express himself in as great detail as he cared. After everyone had been heard that cared to speak, the reference committee then undertook to express the studied conclusions drawn from the discussion. On the following day, the reports of the reference committees were made to the House, and again an opportunity was allowed for discussion of the resolutions as amended by the reference committees. Finally, the resolutions were voted upon. Surely, gentlemen, you will concede that no cut and dried action was possible under such procedure. Furthermore, the action taken by the House was not in effect that of representative government but it was actually the result of democratic action.

The American Medical Association needs the support and the active interest of every member doctor. If it has the interest of every doctor and if every doctor studied and formed an intelligent opinion regarding the policies of the Association, he, by reason of that interest and by reason of those decisions, would be able to make himself heard, either directly or through his chosen representatives, and so would help form and direct the policies.

The first objective of the American Medical Association through the entire century of its existence has been a determined drive for a high standard of medical training. In those early years, there was no basis of selection of a physician other than his personality and his general reputation in the community. The public was at the mercy of the poorly trained man. As a result of the activities of this young association, diploma mills and non-standard medical schools had to close. The number of schools dropped to about sixty. Standardization on a high plane has resulted in an educational program for the training of doctors who are well instructed in the scientific understanding and the treatment of disease. Medical education has benefitted greatly by the work of the Association, and with it has improved the quality of the medical care of the people.

Early in the history of the Association, doctors were urged to have a part in informing the public of the activities and objectives of medicine and their effect upon the public welfare. Public education on health matters has been one of the leading activities of the Association. At no time has the Association ever made an appeal for public funds. Until two years ago, the membership itself was not assessed dues. Profits from its various publications, both periodicals and books, were devoted to and were sufficient to carry on the educational work of the Association. Two years ago, the membership was asked to make a contribution of twenty-five dollars each, to be used in a national educational campaign to prevent socialization of medical practice. More recently, obligatory dues of twenty-five dollars a year have been assessed. The necessity for these dues was brought about both by marked increases in the cost of paper, printing, and labor and by the determination to make a nationwide educational campaign against the trends toward the socialistic state and particularly against efforts to bring medical practice under control of the government in a system of compulsory sickness insurance. American medicine realized that the socialization of medicine was a tremendous basic step in the socialization of the state. Many of the most ardent advocates of social-



in active rheumatoid arthritis, the "best agent . . . that is readily available."[1]

Many therapeutic agents have been advocated for the treatment of active rheumatoid arthritis, with varying degrees of success. Among those now generally available, gold is "the only single form of therapy which will give significant improvement."[2]

SOLGANAL® for intramuscular injection is practical and readily available therapy. It acts decisively, inducing "almost complete remission of symptoms" in fifty per cent of patients and definite improvement in twenty per cent more.[3]

Detailed literature available on request.

Suspension SOLGANAL in Oil 10, 25 and 50 mg. in 1.5 cc. ampuls; boxes of 1 and 10 ampuls. Multiple dose vials of 10 cc. containing 10, 50 and 100 mg. per cc.; boxes of 1 vial.

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(aurothioglucose)

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ization of medicine also realize this and their efforts to foist the system upon the country have not been based on any desire for better public health, but upon a desire to establish socialism in our country.

The Association and doctors as individuals and in lesser groups have been subjected to a bitter and often unfair assault by radical groups in and out of government and no holds have been barred. It has been charged that our opposition to government health insurance is based on purely selfish interests. During the earlier years of the campaign, industry, business and other not directly affected professions largely stood aloof and allowed medicine to take the rap alone. There has been a tremendous change in the last several years in the attitude of these same people. Now, there is general recognition of the basic principles of our fight and gratitude to organized medicine for having taken the gaff so long alone. All forces and groups opposed to the socialistic state and to the creeping effect of socialistic trends within the government now stand shoulder to shoulder with American medicine. That we have won the victory is too much to claim. In spite of our hard fought battles, more and more people are being treated for more and more diseases by doctors paid by the government. However, for the time being, at any rate, the strenuous efforts of organized medicine and its allies have prevented the imposition upon the country of a system of universal compulsory health insurance with its indeterminate tremendous cost, with its devastating destruction of personal initiative, and with its lack of valid contract regarding benefits to be given and costs to be exacted. Had the military and diplomatic situation not worsened as it has, it is certain that compulsory health insurance would have been a widespread campaign issue, and it is certain that renewed efforts would have been made in the next congress to put the plan into effect. It is my feeling that we will have a long lull in these efforts because of the tremendous financial needs of the government to maintain its military establishment with a necessarily great increase in taxation. However, unless there is a definite swing away from the demand of the people for all kinds of government handouts and unless there is a return to a feeling of independence and a return of thrift and self-planning for old age and illness, we shall see a future spectacular renewal of efforts to socialize medical practice.

Much has been said in recent years about the number of doctors which the country now needs and will require in the future. Many statements are not based on fact, nor even on clear theorizing. Before the war, there were more doctors per population in the United States than anywhere else in the world. During the war, there was a stepped up program of medical education so that over ten thousand extra doctors were graduated during the six years prior to 1947. Since that time, three new medical schools have opened. There are approximately two thousand more physicians being graduated each year now than there are deaths amongst members of the profession. In addition to the rather rapid increase in the relative number of physicians, the capacities for medical treatment by physicians have increased tremendously. This has been made possible by better roads and means of transportation, by the utilization of technicians who do much of the laboratory work and by the fact that there are more hospital beds and more people are able to enter hospital for treatment. It is true that shortage of physicians exists in certain areas. However, these shortages are becoming more and more restricted to very sparsely populated districts. Within the foreseeable future, with the increasing number of physicians being graduated and barring a too great demand for civilian physicians by the military establishments, it is quite possible that there may be a surplus of physicians.

There is a shortage which is tending to right itself but more slowly than the overall shortage of physicians. I refer to the shortage of general practitioners. A few years ago, sixty-seven per cent of graduates anticipated limiting their practice to a particular specialty. It appears that that percentage of prospective specialists has decreased materially in the last three or four years. However, it is still too high.

Although the majority of common ailments do not create a serious financial burden, prolonged illness and major surgical operations frequently do. The American Medical Association has devoted much time and thought to the cost of medical services. The prepayment medical care plans, which are being promoted by the American Medical Association and under which more than nine million citizens are now covered, are designed to give the American people a chance to choose between budget and bludgeon. Voluntary health insurance has proved valuable to more than forty million people. The American Medical Association has approved the principle of voluntary health insurance for hospitalization and medical care. The criterion on which approval is based is the requirement that a high quality of medical service be made available without interfering with the physician-patient relationship. The American Medical Association will promptly support any other suggested plan of furnishing medical care to the nation, which will in reality guarantee a higher quality of service.

The interpretation of medical activities which relate to the health of people in terms of public understanding is an important responsibility of the medical profession. Support and confidence of the public is essential to good medical care. The Association has used news releases, the radio, and other methods of public education. Public relations at the individual, community or national level is largely a matter of friendly understanding. When important information, bearing on the public welfare becomes available, its spread is a proper function of organized medicine. The doctor himself has been the principal agency by which most of the fundamental improvements in the

A urinary tract infection

Resistant to "... *all available antibiotics and chemotherapeutic agents.*"[1]

TREATED WITH TERRAMYCIN

M.F., male, age 48

History: Pyelonephritis, 1½ years' duration following ureterocutaneous implants (mixed infection: P. vulgaris, E. coli, Staph. albus, enterococci); previous therapy with all available antibiotics and chemotherapeutic agents without response.

Therapy: Terramycin, 2 Gm. daily for 5 days; orally in divided doses q. 6 h.

Result: Urine culture negative except for P. vulgaris by 2nd day of treatment. Response described as "good".

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New Council-accepted broad-spectrum antibiotic orally effective—well tolerated

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1. Terramycin may be highly effective even when other antibiotics fail.[1]
2. Terramycin may be well tolerated even when other antibiotics are not.[2]

suggested for: *acute pneumococcal infections, including lobar pneumonia, bacteremia; acute streptococcal infections, including erysipelas, septic sore throat, tonsillitis; acute staphylococcal infections; bacillary infections, including anthrax; urinary tract infections due to E. coli, A. aerogenes, Staphylococcus albus or aureus, and other Terramycin-sensitive organisms; acute brucellosis (abortus, melitensis, suis); hemophilus infections; acute gonococcal infections; lymphogranuloma venereum; granuloma inguinale; primary atypical pneumonia; typhus (murine, epidemic, scrub); rickettsialpox.*

Dosage: 2 to 3 Gm. daily by mouth in divided doses q. 6 h. is suggested for acute infections.

Supplied: 250 mg. capsules, bottles of 16 and 100;
100 mg. capsules, bottles of 25;
50 mg. capsules, bottles of 25.

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2. Herrell, W. E.; Heilman, F. E.; Wellman, W. E., and Bartholomew, L. A.: Proc. Staff Meet. Mayo Clin. 25:183 (Apr. 12) 1950

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control of disease have actually reached the people. The past century has been greatest in social progress. Each specific accomplishment in the broad area of social progress has been reflected in the length of human life.

Our own State Association has taken its stand with the progressive forces of organized medicine. Much of the credit for initiating and promoting progressive steps must go rightly to your own member and fellow townsman, Dr. Julian P. Price. During the ten years he was secretary, our Association made tremendous progressive strides. How he found time to study so thoroughly national trends in medical progress, to familiarize himself so well with the multitudinous workings of A. M. A., to establish for himself, and through him for our State Association, a recognized place of leadership in the Councils of the national body, I cannot explain. The fact stands that he did those things, and in addition, he accomplished what was, perhaps, a harder task; namely, he imbued leaders of his own Association with enthusiasm for his progressive ideas and through them he made of our Association a progressive organization.

It was largely because of the vision and the efforts of Dr. Price that a fellowtownsman of another profession was called to assume an entirely new avocation. I refer to Mr. M. L. Meadors. He, perhaps, came to us with an unfortunate title, namely Director of Public Relations and Legal Counsel. Although a Director of public relations is an important officer to any organization which solicits and requires the goodwill of the people, he loses some of his effectiveness if his task is too blatantly advertised by his name-label. The principles of how to win friends and influence people are excellent, until you tell the recipients of the application of those principles of your objectives.

The employment of a Director of Public Relations was a great forward step made by our Association—and made before most other states had recognized the need.

The business side of the State Association has grown with the growth of its importance in the national organization. Last year alone, we collected over $52,000 and disbursed over $59,000. Ten thousand dollars of that was lent to the South Carolina Medical Care, or Blue Shield Plan. Actually, our expenses were about $4,000 less than our income. Files, records, reports, and other clerical tasks are voluminous. It was evident that the Association needed a business manager, so the duties of that newly-created office were added to those of the Counsel & Director of Public Relations. Actually, his title should be, Executive Secretary, and I hope to see it changed to that.

Long before A. M. A. adopted its twelve point program, our Association adopted a "Ten Point Program," as a statement of its objectives. The first of the ten points is "Cooperation—To promote close cooperation and better understanding between all agencies, groups and individuals concerned with providing and improving medical care for the people of the state." To a considerable extent, this is a pledge to seek to improve public relations for there are lay agencies and professional agencies not concerned with private practice which are concerned with improving medical care. Our relations with these are excellent. As an illustration, not a single bill of medical interest was introduced into the General Assembly last year.

Our second objective is the "Extension of medical care: to study constantly the need and availability of medical care in each county of the state and to promote plans for providing or improving such care, where it is needed, particularly in the rural areas." Study still goes on. Rural scholarships have been provided in the Medical College. Extension of postgraduate courses for family doctors has been provided. The Committee on Maternal Welfare is constantly studying mortality causes and seeking to remove them. The Woman's Auxiliary last year had as its special project an educational program on maternity care for our negro citizens. The negro physicians of the state and their auxiliary have taken up the project and will carry it on. There is an association sponsored Council on Community Health.

"Prepaid hospital and medical care" is the third objective. You are all familiar with Blue Cross, which began as the Greenville County Hospital Care Plan and later with the assistance of our Association was made state-wide. Our Blue Shield Plan is not so old nor so well known. After four years of study and work, an enabling act was pushed through the General Assembly, details of organization were worked out and the Plan was authorized by the House of Delegates of the Association about one year ago. The Plan went into operation in April. Already 13,000 people are covered by the Plan. These comprise 1,667 groups and nearly 3,000 families. Our biggest problem will be to reach the non-industrial, rural population, and our next problem will be to extend the protective coverage as rapidly as sound acturial experience will warrant.

Point number four is "Care of the indigent." Perhaps, too little organizational work has been done on that objective. Of course, individually every doctor has contributed of his time, talent, and equipment to the care of the poor. There are strong indications that our Association will soon have important progress to report. A committee under the able leadership of Dr. J. K. Webb of Greenville has completed an exhaustive study of the whole situation in our state and how it has been handled in other states. The committee is now preparing its recommendations. It has already received important pledges of support.

Point number five is a pledge to support public health and the State Board of Health. Since our Association is by law the State Board of Health, support of it goes without saying. However, I believe that there is now less dissatisfaction with the policies and

PHYSICIANS of the South have an urgent call to St. Louis for the annual meeting of the **Southern Medical Association,** Monday, Tuesday, Wednesday and Thursday, November 13-16. Medical meetings are essential in times of war as well as in times of peace. In the light of the world situation today this meeting of the Southern Medical Association may be the last complete general medical meeting to be held for some time to come. With this thought in mind, it is very important that all physicians take advantage of this opportunity to bring themselves up to date on the latest developments **in the profession.**

THE ST LOUIS meeting will be one of the most complete medical meetings ever offered to the profession. Every phase of medicine and surgery will be covered in the general clinical sessions, the twenty-one sections, the five conjoint meetings and the scientific and technical exhibits

REGARDLESS of what any physician may be interested in, regardless of how general or how limited his interest, there will be at St. Louis a program to challenge that interest and make it worthwhile for him to attend.

MEMBERS of state and county medical societies may attend. Eligible physicians, members of state and county medical societies in the South **can be and should be** members of the Southern Medical Association. The annual dues of $8.00 include the Southern Medical Journal, a journal valuable to physicians of the South, one that each should have on his reading table.

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Naturally Good!

the Ice Cream with
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Better tasting—better for you. Wholesome, nutritious, Southern Dairies Sealtest Ice Cream is the South's favorite. Try a delicious serving tonight.

Southern Dairies
Sealtest
ICE CREAM

the work of the executive committee than ever before.

"To support health councils" is the sixth point, and "To promote the expansion of hospital facilities and to strive for highest standards of professional care in hospitals" is the seventh.

Number eight is "To support the Medical College." Everyone here is familiar with the fine work for the College done by the Association under the leadership of the late Dr. James McLeod. State appropriation of money to build a clinic hospital was secured. This was the keystone to the arch of the expansion program. That appropriation has been matched by federal funds, allocated by the State Hospital Authority, after recommendation of the Hospital Advisory Council. Charleston County donated the building site. The site is now being cleared. Working plans are being readied, and soon the contract will be let—if the war situation does not make building impractical. The College still needs more laboratory space, to cost an estimated $400,000. If that is provided, its freshman class can be increased from the present 60 to 70 or even 75 members. The Alumni Association has provided a dormitory site, and the state has authorized the borrowing of a million dollars on a self-liquidating, low interest basis to construct a dormitory and faculty housing. Here again the war may seriously retard plans to build.

The number nine point is "The education of the public regarding problems of medical care and to inform them of plans being made to solve them." This discussion tonight is a part of that project. Our Director of Public Relations has made talks to lay groups all over the state on these problems. The Association maintains a speakers bureau which has provided many other speakers.

The final point of our ten point declaration of objectives is, "To seek to prevent political control or domination of medical practice and of medical education." This objective has been diligently pursued as each of you are aware. Our fight is not inspired by selfish motives. We sincerely believe that under such a system our people would receive unsatisfactory and inferior medical care, that the quality of medical service would deteriorate, that incentives to increase one's knowledge would be removed, that ambition would wane, that the sacred doctor-patient relationship would be destroyed and that such a system would be the most important basic step on a road to state socialism. Those are our reasons for fighting the proposal. However, we also freely admit we do not like paper work and reports, and we, being an independent and individualistic lot, are intolerant of regimentation.

These, then, are our objectives. Much remains to be done before they are accomplished. However, our Association pledges continued, consistent effort, and we solicit moral and substantial aid from our lay friends who are our patients and the recipients of our care.

NEWS ITEMS

Dr. Hugh Smith, Jr., is now associated with his father, Dr. Hugh Smith, in Greenville in the practice of internal medicine.

Dr. George McF. Mood has announced the association of Dr. William J. Mood in the practice of pediatrics.

Dr. Ralph Parr Baker announces the opening of the Henry Parr Baker Memorial Clinic in Newberry for the practice of surgery.

Dr. Samuel M. Wilkes is now associated with Dr. John K. Webb in Greenville, practice limited to surgery.

Dr. James A. McLeod announces the opening of his office for surgery in Florence.

Dr. Furman announces the association of Dr. Allie M. Stanton and Dr. William F. Utterman in the practice of surgery in Spartanburg.

Dr. Willard C. Hearin is now associated with Dr. David F. Watson in Greenville, in the practice of obstetrics and surgery.

Dr. F. Eugene Zemp announces the formation of a partnership with Dr. C. Warren Irvin for the practice of internal medicine in Columbia.

Dr. Myers Hicks has opened offices in Florence for the practice of internal medicine.

SOUTHEASTERN ALLERGY ASSOCIATION

The sixth annual meeting of the Southeastern Allergy Association will be held at the Vinoy Park Hotel, St. Petersburg, Fla., Jan 20-21, 1951. Reservations are to be made individually with the hotel.

An outstanding program is being arranged which will include papers from distinguished allergists and a special "Stump the Experts" feature.

Those interested in presenting papers are asked to communicate with the Secretary, Dr. Katherine Baylis McInnis, 1515 Bull St., Columbia, S. C.

The Piedmont Proctologic Society's annual meeting was held in Hendersonville, N. C. on Saturday, August 26, 1950. Dr. C. R. Deeds of Hendersonville, N. C. was elected its new President, Dr. J. M. Stockman of Knoxville, Tenn. was made Vice-President, and the Secretary, Dr. C. S. Drummond of Winston-Salem, N. C. was re-elected. The next meeting of the Society will be held on Saturday, March 31, 1951 at Knoxville, Tenn.

A.P.H.A. ANNUAL MEETING

The 78th Annual Meeting of the American Public Health Association and meetings of 32 related organizations in the field of public health and preventive medicine will be held in St. Louis, Missouri, October 30 to November 3.

DR. BANOV APPOINTED TO HEART ASSEMBLY

Dr. Leon Banov, director of the Charleston County Health Department, was appointed to membership in the National Assembly of the American Heart Association at a recent meeting of the Association in San Francisco. The National Assembly determines the policies of the Association.

DR. GUYTON APPOINTED DIRECTOR OF PUBLIC HEALTH EDUCATION

Dr. Ben F. Wyman, State Health Officer, has announced the appointment of Dr. C. L. Guyton as director of the State Board of Health's Division of Health Education. The division was organized in 1944 with Dr. James A. Hayne director, but when Dr. Hayne retired in 1947 the personnel and activities of the division were transferred to the Division of Administration.

Dr. Ben F. Wyman, State Health Officer, has announced that the South Carolina Heart Hospital at Fort Johnson near Charleston will begin admitting patients early in September.

Rheumatic fever patients in the South Carolina Convalescent Home in Florence will be transferred to the hospital as soon as it opens and all future rheumatic patients referred from the State Board of Health's Rheumatic Fever Clinics will be sent there. A special building is being prepared for adult heart patients to be referred from the Heart Clinics over the State.

The Fort Johnson property was recently transferred from the Federal Government to South Carolina for use by the State Board of Health as a heart hospital. It is a 90-acre peninsula on the Ashley River at the tip end of James Island. Jutting into the water near where the Ashley and Cooper Rivers converge, the hospital site affords a panoramic view of the City of Charleston, Sullivan's Island and Fort Sumter. Its history dates back to 1704 when it was built under the proprietary government to defend Charles Town from attack by a French fleet. It later served as a military outspost for the British, a Revolutionary fort, a Confederate fort, and finally a U. S. Quarantine Station. It was named for Sir Nathanael Johnson, a governor under the proprietary government.

Walter P. Boylston, former sanitation consultant in the State Board of Health's Division of Sanitary Engineering, has been appointed superintendent of the hospital. Appointments to the hospital staff will be announced later.

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WOMAN'S AUXILIARY
SOUTH CAROLINA MEDICAL ASSOCIATION

President: Mrs. A. F. Burnside, Columbia, S. C. **Publicity Secretary: Mrs. Weston Cook, Columbia, S. C.**

NATIONAL BULLETIN

If you are a member of the Medical Auxiliary, you want to be an *informed* member. You want to know what this organization is doing. Is its work worthwhile? Can you be proud to say that you are a member of it? You have not joined it because it is a purely social organization, though that is an important feature of it. If it be organized for the purpose of helping our husbands, is it really doing so? Just what is the Auxiliary doing?

That is why *every* member should subscribe to the Bulletin of the Woman's Auxiliary to the American Medical Association. It tells you what the Auxiliary is doing, and you will see that the work *is* worthwhile.

The Bulletin carries the official programs of the national organization, as well as valuable information concerning Auxiliary work and general health affairs with which every doctor's wife should be familiar. It is not a publication for officers alone, but for *members* as well, *all members.*

There are four issues of the Bulletin a year, and the cost of the year's subscription is one dollar. You will find this a dollar well spent. Let's try to have our members 100% Bulletin subscribers. It will make the national organization take notice of us, but more than that, we will know so much more about the over-all work of the Auxiliary than we have ever known before.

Mrs. E. O. Hentz
State Bulletin Chairman

A MEMBER OF THE ADVISORY COUNCIL WRITES

To the Woman's Auxiliary to the South Carolina Medical Association: Greetings.

Almost from the beginning of the South Carolina Medical Association, your organization has been in existence, and has been of immeasurable assistance to the medical profession of the state. In my opinion, every doctor's wife in South Carolina should belong to this organization.

As a member of your advisory council I shall be glad to assist you at any time in any way that I can. Please feel free to call upon me.

R. L. Crawford, M.D.

COLUMBIA TO HAVE SPEAKER FROM CHICAGO

Miss Mary McGinn, a member of the Woman's Division of the National Education Campaign of the American Medical Association, will be the guest speaker of the Columbia Auxiliary at a Dutch luncheon meeting to be held on November 14. She will speak on "Socialized Medicine — a Sellout of Our Country's Future".

Miss McGinn has been active since January of 1949 in enlisting the support of hundreds of National, State and local women's organizations in the campaign against National Compulsory Health Insurance.

A resident of San Francisco, and a graduate of Stanford University, Miss McGinn presently is attached to the Chicago headquarters of the A.M.A. National Education Campaign.

Miss McGinn is an experienced speaker and writer in public campaigns. She has made a special study of the Compulsory Health Insurance Issue, particularly from the standpoint of the household budget. Her talks on the subject have a special interest for all women's groups interested in public affairs and in National welfare.

Any Medical Auxiliary members interested in hearing Miss McGinn will be welcome to attend this meeting of the Columbia Auxiliary. Luncheon reservations can be made by writing Mrs. John Holler, 3630 Monroe St., Columbia.

DEATHS

STANMORE WATSON TALBERT

Dr. Stanmore W. Talbert, 56, died at his home in Columbia on August 27, after an illness of six months.

A native of Columbia, Dr. Watson was a graduate of the University of South Carolina and of the University of Georgia School of Medicine (Class of 1921). Following a year of interneship he returned to his home town where he engaged in general practice up to the time of his last illness. He was a member of the visiting staff of the Columbia and Providence Hospitals.

Dr. Talbert is survived by his wife, the former Miss Carolina Elizabeth Macmurphy, and two daughters.

ALVA S. PACK

Dr. Alva S. Pack, 62, died at his home in Greenville, September 5.

A native of Manning, he moved to Greenville at the age of two and made that city his home until his death. Graduating from the Medical College of South Carolina (1911), he located in his home town and practiced medicine and surgery until his retirement in 1948.

Dr. Pack is survived by his widow, the former Miss Alma Hilton, one son and one daughter.

CORRESPONDENCE

Correspondence
Dr. Julian Price,
Florence, S. C.
Dear Dr. Price,

I am in receipt of a letter from Dr. Kenneth Lynch, Dean of the South Carolina Medical College, suggesting I write you with regard to placing notice in State Medical Journal, to try to induce some good Doctor to look our situation over.

As former Mayor of this city for 10 years, I believe I am in a position to to explain the conditions. There is a wonderful opening here, a live wire can not only make a living, but can "bank". Good payrolls, good people, schools, and churches. It is hard to just say from how many sources our payroll is derived, but if a Doctor comes, either a general practitioner or one with a combination of surgery, he will have all he can handle and then plenty to spare.

The only way for a man to really know is to come here, see me and I will arrange meeting with business executives.

Thanking you if you can help us out through your journal, I am,

Very respectfully,
Royal S. Sanders

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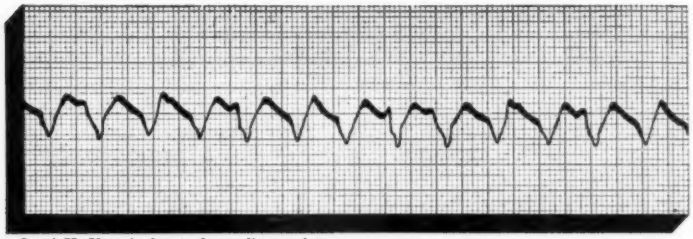
OCTOBER 16-21

Communities throughout the nation are preparing to mark this important event in popular health education. A series of full color posters are nationally distributed in schools, colleges, factories, Y's, clinics, health centers and other institutions. These two heavily illustrated booklets have been widely accepted by physicians everywhere for distribution to their patients. Their titles are: "Blue Prints for Body Balance" and "The Human Back . . . its relationship to Posture and Health." Ask for samples or the quantity you need on your letterhead. Write to SAMUEL HIGBY CAMP INSTITUTE FOR BETTER POSTURE, Empire State Building, New York 1, N. Y. Founded by S. H. Camp and Company, Jackson, Mich.

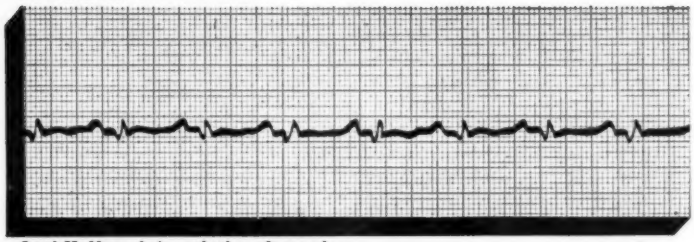
A New Drug..for the treatment of ventricular arrhythmias

BEFORE



Lead II. Ventricular tachycardia persisting after six days of oral quinidine therapy (8 Gm. per day).

AFTER



Lead II. Normal sinus rhythm after oral Pronestyl therapy.

Effective in some patients with ventricular tachycardia who failed to respond to quinidine

PRONESTYL *Hydrochloride*

Squibb Procaine Amide Hydrochloride

SQUIBB

new product brief

PRONESTYL *Hydrochloride*

Squibb Procaine Amide Hydrochloride

for the treatment of ventricular arrhythmias

What is it?

Pronestyl Hydrochloride is Squibb procaine amide hydrochloride. Structurally, Pronestyl differs from procaine only by the presence of the amide grouping (.CO.NH.) in Pronestyl where procaine has the ester grouping (.CO.O.)

How does it act?

The action of Pronestyl is probably due to a direct depressant action on the ventricular muscle. In auricular arrhythmias, preliminary observations indicate that Pronestyl slows auricular rate but usually does not re-establish normal sinus rhythm. At present, Pronestyl is not recommended in the treatment of auricular arrhythmias.

When is it indicated?

In conscious patients, for the treatment of ventricular arrhythmias.

During anesthesia, to correct cardiac arrhythmias.

What are its advantages in ventricular arrhythmias?

As compared with quinidine: Unlike quinidine, no important toxic symptoms have been reported following the use of Pronestyl orally. In therapeutic dosage, Pronestyl orally does not produce the nausea, vomiting, and diarrhea often caused by quinidine. At high oral dosage, these symptoms may appear.

Whereas intravenous administration of quinidine is hazardous and unpredictable, Pronestyl may be given intravenously with relative safety.

Pronestyl has been found effective in some patients who failed to respond to quinidine.

As compared with procaine: For arrhythmias, procaine is used only in anesthetized patients because its dose in unanesthetized patients is too toxic for clinical use. Pronestyl can be used in conscious and anesthetized patients.

Intravenously, Pronestyl is much less toxic than procaine. In the recommended intravenous dosage, Pronestyl does not cause the central nervous system stimulation typical of procaine in conscious patients.

Procaine is unstable, being rapidly hydrolyzed in the plasma to para-aminobenzoic acid and diethylaminoethanol. Pronestyl is not affected by the plasma procaine esterase, consequently it is much longer acting than procaine.

Procaine is not used orally because of its instability in the organism; Pronestyl can be used orally and intravenously.

What are its side effects?

Oral administration of Pronestyl in doses of 3-6 grams per day, for periods of time varying from 2 days to 3 months, produced no toxic effects as evidenced by studies of the blood count, urine, liver function, blood pressure, and electrocardiogram. Intravenous administration to patients without ventricular tachycardia produced only a moderate and transient hypotensive effect in about one-third of the subjects. However, during intravenous administration to patients with ventricular tachycardia, a striking hypotensive effect was almost invariably present. This disappeared concurrently with the establishment of a normal rhythm. Further studies are in progress to see whether the drug may be given intravenously over a period of time longer than five minutes so as to revert the ventricular tachycardia without causing hypotension. That this may be possible is indicated by the fact that some episodes of ventricular tachycardia have been successfully treated by oral administration without significant change in blood pressure. Electrocardiographic changes: prolongation of QRS and QT intervals and occasional diminution in voltage of QRS and T waves have occurred.

What is the dosage?

IN CONSCIOUS PATIENTS

For the treatment of ventricular tachycardia:

ORALLY: 1 Gm. followed by 0.5-1.0 Gm. every four to six hours as indicated.

INTRAVENOUSLY: 200-1000 mg. (2 to 10 cc. Pronestyl Hydrochloride Solution). *Caution—administer no more than 200 mg. (2 cc.) per minute.*

Hypotension may occur during intravenous use in conscious patients. As a precautionary measure, administer at a rate no greater than 200 mg. (2 cc.) per minute to a total of no more than 1 Gm. Electrocardiographic tracings should be made during injection so that injection may be discontinued when tachycardia is interrupted. Blood pressure recordings should be made frequently during injection. If marked hypotension occurs, rate of injection should be slowed or stopped.

For the treatment of runs of ventricular extrasystoles.

ORALLY: 0.5 Gm. (2 capsules) every four to six hours as indicated.

IN ANESTHESIA

During anesthesia, to correct ventricular arrhythmias:

INTRAVENOUSLY: 100-500 mg. (1 to 5 cc. Pronestyl Hydrochloride Solution). *Caution – administer no more than 200 mg. (2 cc.) per minute.*

How is it supplied?

Pronestyl Hydrochloride Capsules, 0.25 Gm., bottles of 100 and 1000.

Pronestyl Hydrochloride Solution, 100 mg. per cc., in 10 cc. vials.

SQUIBB

MEETINGS WORTH ATTENDING

FOUNDER'S DAY PROGRAM
CHARLESTON, S. C.
NOVEMBER 2

SOUTHERN MEDICAL ASSOCIATION
ST. LOUIS
NOVEMBER 13–16

CLINICAL ASSOCIATION
A. M. A.
CLEVELAND
DECEMBER 5–8

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Only consent patients are accepted. The conditioned reflex treatment and the use of unnecessary restraint are rejected. Rather, facilities and staff are teamed to create an atmosphere that will enable each patient to understand and accept the responsibility in working toward his own rehabilitation.

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Male patients chiefly. New facilities for a limited number of women patients.

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A. F. Fortune, M. D., Medical Director Ben F. Fortune, M. D., Associate Medical Director

ABSTRACTS

Emery, F. C.: Acute Laryngotracheobronchitis; Arch. of Ped.; Vol. 67 No. 3: 116-123; March 1950.

The author presents a series of 332 cases of true laryngotracheobronchitis which he defines as an acute infection of the larynx, trachea and bronchial tree characterized by inflammation and edema of the larynx, and a thick, tenacious, sticky, purulent secretion which obstructs the lower respiratory passages. The tracheal mucosa is swollen and its lumen may be filled for its entire length with ropy, adherent, thick, greenish, purulent matter with the consistency of chewing gum. This condition extends down into the bronchi. The lungs show areas of atelectasis, congestion, and consolidation. The epithelial lining of the respiratory mucosa shows a loss of cilia.

The etiology is a mixed infection in most cases. Cultures in this study showed hemolytic streptococci, staphylococci, pneumococci, H. influenzal and in one case Friedlander's bacillus. The disease has an abrupt onset characterized by sudden elevation of temperature, hoarseness, croupy cough with an inspiratory stridor, marked dyspnea and there may be extreme prostration and toxemia. Eighty percent of the patients were between 5 months and 3 years of age. There were 16 deaths. The highest incidence of cases was in January and February with the peak in March.

The management of these cases resolves itself into (1) providing a humid atmosphere; (2) combating cyanosis with oxygen; (3) using small doses of barbiturates if sedation is necessary; (4) gentle suction of the nasopharynx; (5) occasionally using doses of ipecac; (6) hydration, most important; (7) the vigorous early use of the antibiotics—namely the combined therapy of penicillin, streptomycin, and aureomycin; and (8) tracheotomy if the child does not improve in one hour after admission.

Complications of Spinal Anesthesia; Eversole, U. H.; The Surg. Clinics of N. A.; Vol. 30, No. 3:693-703; June, 1950.

The author lists the following complications of spinal anesthesia with suggestions as to their treatment—(1) inadequate anesthesia, (2) wearing off of anesthesia before completion of operation, (3) nausea, retching and vomiting all of which may be controlled by supplemental pentothal sodium intravenously or cyclopropane gas. The author also advocates curare and curare-like drugs, (4) respiratory depression which rarely lasts longer than 20-30 minutes, may be controlled by administering oxygen from a gas machine, (5) circulatory depression, which is thought to be due to a paralysis of the vasoconstrictor fibers in the anterior spinal nerve roots with resultant stagnation of blood in the arteriolar bed, is controlled by three notable drugs, epinephrine, ephedrine and neosynephrine. The author apparently prefers 20 mgms. of neosynephrine in 1,000 c.c. of normal saline intravenously, (6) pyloric or small bowel obstruction is best handled by passing a Levin tube in order to prevent aspiration of regurgitated fluid, (7) nervousness and apprehension are allayed with 1 to 3 grains of pentebarbital sodium, (8) headache is usually treated conservatively but in severe cases spinal fluid may be replaced with physiologic saline since the headache is thought to be due to the slow leakage of spinal fluid through the dural puncture site into the subdural space, (9) cranial nerve palsies affecting mainly the abducens nerve is rarely reported. There is no treatment and recovery can be expected in almost every case, (10) the cauda equina syndrome is manifested by some degree of motor or sensory impairment of the lower extremities, varying degrees of urinary retention and incontinence of feces. Treatment consists of tidal irrigations of the bladder to avoid infection, cleansing enemas, investigation of spinal fluid dynamics, irrigations of the sub-arachnoid space with isotonic saline in order to wash out any remaining anesthetic, prevention of decubitus, and numerous other symptomatic measures.

Potassium Deficiency in Surgical Patients: Its Recognition and Management: Evans, E. I.; An of Surg. Vol. 131 No. 6; 945-959; June 1950.

The author states that it is now more widely recognized that under certain conditions of dehydration and salt deprivation or loss, as occurs in prolonged vomiting or prolonged diarrhea or with loss of other drainage fluids particularly from the biliary and upper intestinal tract, transfer of some of the cell potassium to the extra-cellular space may occur, to be replaced under certain conditions by the ingress of sodium from the plasma or interstitial fluids to the cell. When sodium and potassium is lost in this manner, the normal kidney tends to conserve sodium by almost complete tubular re-absorbtion so that almost none appears in the urine. This, however, is not the case with potassium, and therefore the very definite need for its replacement.

Potassium deficiency is recognized by, (1) extreme muscular weakness, (2) paralysis of excessory respiratory muscles, (3) aphonia, (4) coma, (5) low amplitude of the T waves and lengthening of the Q-T interval in the EKG and (6) a serum potassium level of 2.6 MEQ or below.

The following nine cases are listed in which potassium deficiency was found; (1) a case in which continuous gastric drainage was employed, (2) inanition due to esophageal carcinoma, (3) pyloric obstruction, (4) intestinal obstruction, (5) fecal fistula, (6) paralytic ileus, (7) protracted diarrhea, (8) severe trauma—ruptured ileum, (9) and finally a case to show the ill effect of adrenal cortical hormone on hypochloremic alkalesis.

The severity of the deficiency and the ionic composition of the replacement fluids are of paramount importance in the treatment. Ringer's solution does not sustain normal plasma potassium levels with continued loss of body fluids and is wholly unsuitable as a replacement fluid. In severe cases the author gives the first few grams of KCL over a period of 1-4 hours and then 2-4 grams per day intravenously, above the daily losses. Oral administration of KCL up to 5 grams every 4 hours is started as soon as possible. Once the plasma bicarbonate content has fallen to normal levels after alkalosis, the author considers the potassium situation well in hand.

CANCER SEMINAR

The annual meeting of the Southeastern States Cancer Seminar will be held in Jacksonville, Florida, 8, 9 and 10 November 1950, at the George Washington Hotel auditorium. A well rounded program has been planned which will be of interest to every branch of medicine.

This is the second time the meeting has been held in Jacksonville, the first meeting of this type being held November 1947, at which time there was an attendance of over 800 doctors, whose response to the value of this meeting was excellent.

The seminar is being sponsored by the Duval County Medical Society, the Florida State Board of Health, and the American Cancer Society Florida Division. *There will be no registration fee.* Make your plans now to attend. Request for hotel reservations may be made to the American Cancer Society Information Center, 429 West Duval Street, Jacksonville, Florida.